DOCUMENT RESUME

ED 254 252 IR 051 054

AUTHOR	Bass, Clifford W.; Noonan, Barry Christopher
TITLE	1880 Census Project Users Manual.
INSTITUTION	Wisconsin State Historical Society, Madison.
REPORT NO	ISBN-0-87020-229-4
PUB DATE	Nov 84
NOTE	41p.
AVAILABLE FROM	State Historical Society of Wisconsin, Publications Dept., 816 State Street, Madison, WI 53589-1482 ($5.00 per copy).
PUB TYPE	Guides - Classroom Use - Materials (For Learner) (051) -- Computer Programs (101)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Census Figures; *Computer Software; *Correctional Education; *Databases; *Data Processing; Guidelines; History; Human Geography; *Population Distribution; Prisoners
IDENTIFIERS	Apple II; BASIC Programing Language; Nineteenth Century; *Wisconsin

ABSTRACT

This manual was developed as part of a cooperative project between the State Historical Society of Wisconsin and the Wisconsin Division of Corrections' Green Bay Correctional Institution. As part of a new training program involving computers at Green Bay, the Director of Education approached the State Historical Society about developing a program appropriate to the training needs of the inmates that would also produce something of permanent value of the State. Based on the Society's extensive experience with the 1905 Wisconsin Census Indexing Project and the many developments in the area of automation initiated by the archives, the Society developed a project in which students would help to create a database listing and index of the 1880 Census for Wisconsin. In developing the program they hoped to create a model that would have wide applicability not only for other states and censuses but for historical demographic data in general. The manual comprises six sections: (1) Introduction; (2) The 1880 Census; (3) A Few Definitions; (4) Using the Computer; (5) Census Data Entry; and (6) Hints for Solving Problems and Additional Information. Appendices include population totals for Wisconsin counties, 1880; population totals for towns, villages, and wards of cities, 1880; and a copy of the 1880 Census Program written in Applesoft BASIC. (THC)

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1880 CENSUS PROJECT

USERS MANUAL

By

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and

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State Historical Society of Wisconsin

Madison, Wisconsin

November, 1984

IR051054

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ISBN 0-87020-229-4

Library of Congress Cataloging in Publication Data

Bass, Clifford W., 1961-
1880 census project users manual.

1. Wisconsin--Genealogy--Computer programs. 2. Wisconsin--Genealogy--Handbooks, manuals, etc. 3. Wisconsin--Census, 10th, 1880-Computer programs. I. Noonan, Barry Christopher. II. Wisconsin Center for Historical Demography. III. Title.
F580.B37 1984 317.75'028'5442 84-26802

Alternative Cataloging in Publication Data

Bass, Clifford W., 1961-
1880 census project users manual. By Clifford W. Bass and Barry Christopher Noonan. Madison, WI: Wisconsin Center for Historical Demography, State Historical Society of Wisconsin, 1984.

"In this project you will use a computer to help create a data base (listing and index) of the 1880 Census of Wisconsin."

1. Wisconsin--Census, 1880--Data processing. 2. Data bases--Handbooks, manuals, etc. I. Noonan, Barry Christopher, 1956-. II. Wisconsin Center for Historical Demography. III. Title. IV. Title: Census project users manual.
312.09775

PREFACE

This manual was developed by the Wisconsin Center for Historical Demography as part of a unique cooperative project between the State Historical Society of Wisconsin and the Wisconsin Division of Corrections' Green Bay Correctional Institution. As part of a new training program involving computers at Green Bay, Phil Slinger, the Director of Education, approached the Society about developing a program appropriate to the training needs of the inmates but would also produce something of permanent value to the state. Based on the Society's extensive experience with the 1905 Wisconsin Census Indexing Project and the many developments in the area of automation initiated by the Archives, the Society created a plan to create a data base of the 1880 Census for Wisconsin. In developing our program our hope is to create a model that will have wide applicability not only for other states and censuses but for historical demographic data in general. This document is a first step and we encourage anyone interested in this field to contact us.

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1. INTRODUCTION

In this project you will use a computer to help create a data base (listing and index) of the 1880 Census of Wisconsin. You will be responsible for entering into the computer a wide variety of information, which will eventually be put together with the work of others to form the complete data base.

Why create a census data base?

The United States Federal Censuses are taken every ten years, as mandated by the Constitution. Originally their only purpose was to "count noses" for the purpose of calculating the number of people each state sent to the House of Representatives, since this is based on population. Gradually, however, the census came to be seen as a way to collect all sorts of useful information about people. The fact that the census is taken at the same time everywhere makes it possible to produce a "snapshot" of the entire country each decade.

Therefore, people who are researching their family trees; historians interested in the way people lived, the kinds of occupations they had, and the way they moved about; and demographers who compile statistical tables about people who lived long ago, all can find much of interest in a census. Ever since the censuses from 1790 to 1880 were released to the public a generation ago, they have been among the most-used of historical records. However, the census takers listed people in the order they visited them, and, especially in big cities, this makes finding a particular individual or family a matter of a long and boring search. Indexes which list the names alphabetically can therefore save much time and frustration. The information in a computerized data base can be sorted in virtually any way imaginable, and questions like "Where was my great-grandfather living in 1880?", "How many Norwegians lived in Milwaukee?", and "Who was the oldest living resident of Wisconsin in 1880?" can be answered almost instantaneously. (The census information is kept private for 72 years; the data collected in 1980 won't be released to the public until 2052.)

The first census was taken in 1790; it only listed the name of the head of the household, and the number of people living with him or her, divided into a few sex/age categories. By 1880, however, more than 25 types of information were listed about each person. The computer program you will be using was written so that you can, with a little practice, copy all this information quickly and accurately.

Aren't the pages of the 1880 census a little fragile by now?

Frankly, yes. That's why the entire census has been photographed onto microfilm (familiar to those who like spy novels). You will be given the use of a microfilm reader, which enlarges the image on the film so you can read it, and a roll of film with part of the 1880 census on it.

2. THE 1880 CENSUS

Before learning about the computer equipment, it would be a good idea to look at a page of the 1880 census, and get a feel for the kinds of information you will be recording.

In 1880, each county was divided in to several "enumeration districts." In the upper left-hand corner of each census page, you will see a line for "Enumeration Dist. No." followed by a written number. This number, and the name of the town and the county (after the words "Inhabitants in" at the top of the page) are what people need to know to find the general area of the census that a particular person was listed in.

Two lines above the enumeration district is the "Page No." Ignore this. The page numbers you will be entering into the computer are the ones stamped in ink (not written) in the upper right-hand corner of the page. Make a special note of this now; unfortunately, going back and correcting your computer entries, once you discover some are wrong, is a time-consuming and tedious process.

Actually, this number stamped in ink is a sheet number: both the front and back of a sheet have the same number. The front and back are distinguished by a printed letter, A, B, C, or D, in the upper right- or left-hand corner of each page. (A's and C's are on the right; B's and D's are on the left: Please see for yourself). Sometimes the letters are faint, or covered with tape, but they are always there. If you can't find it, you can figure out what it must be by looking at the pages before and after.

Usually, the first sheet in a volume (stamped "1") is a sheet with an A and a B, the second sheet ("2") has a C and a D, etc. So the normal sequence of pages is: 1A, 1B, 2C, 2D, 3A, 3B, 4C, 4D, 5A, and so on. In other words, odd sheet numbers have A's and B's, and even sheet numbers have C's and D's. It would helpful if you get used to this system right away, so that when you sit down to enter the data, it will already be second nature and you can do it right, from the beginning.

In columns, on the far left and far right sides of the page, are the line numbers, 1 through 50. Each page starts over with line 1.

Now you can see that researchers, armed with the precise description of a location in the census (provided by you), can go directly to the exact line they want to see, even if they didn't know what county to look in before. You can also see the accuracy is very important here; if your "road map" directs the searcher to the wrong place, it won't matter if all the personal information you painstakingly recorded is correct or not. Fortunately, as you'll see, the computer takes care of most of the work.

3. A FEW DEFINITIONS

As with any occupation, computer data entry has its own language. Here are some words that are used frequently in the instructions that follow:

Disk - sometimes called "floppy disk" or "diskette", it looks like a thin, brown 45 rpm record tucked inside a protective jacket. (Be sure to follow the instructions on the jacket for handling the disk.) You will use two disks at a time: one contains the computer program you will be using, and the other will store the data you enter.

Disk drive or just **drive** - a cabinet-like device into which the disks are inserted, in order to read the information or instructions that are encoded on them. When disks are being used inside the disk drive they make a soft whirring sound as they spin. This is normal.

Files and **filenames** - a disk can be divided into files if there are several kinds of information on the same disk. Each file is given its own filename. Many files can go on the same disk, but in this project, there will be only one file on each disk; therefore the disk will have the same name as the file on it.

Record - all the information about one census person. Each disk can hold up to 686 records.

Section - not really a "computer word," but used here to describe the three main groupings of information within a record. Generally speaking, the first section contains general location; the second section specific location; and the third section personal information.

Field - the space set aside for each item of information you will record for each person. There are 32 fields per record in this project: 4 in the first section, 7 in the second section, and 21 in the third section.

Monitor - the screen on which your work is displayed.

Cursor - a rectangle that shows you where you are on the screen.

4. USING THE COMPUTER

First set up the microfilm reader, and turn the reel to the first page you'll be indexing.

Your disk drive has two compartments, which should be labeled "Drive 1" and "Drive 2". To begin, insert the disk labeled "1880 Census Programs" in Drive 1, and close the door to the drive. (There are instructions on the disk jacket that will explain which way the disk goes in; it has to be a certain way or the program won't work). Insert your other disk in Drive 2, and close its door. Now turn the machine on (the switch is located on the back left of the keyboard unit). You will also need to turn the monitor on. Its switch is located above and to the right of the screen. After the disk stops spinning, the following will appear on your monitor:

1880 CENSUS PROGRAM

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ENTER FILENAME:

At this point type in the filename and then press **RETURN**. If you are using a disk that already has some information stored on it, and you have forgotten your filename, type a question mark (?) to get the filename you used before. Make sure that you use the same filename each time you use the same disk.

After you type **RETURN** the computer will give you a chance to insert the disk into Drive 2 if you haven't already done so, and ask you to make sure that the **CAPS LOCK** key is in the down position.

1880 CENSUS PROGRAM

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PLEASE MAKE SURE THAT <CAPS LOCK> IS DOWN

PLEASE INSERT *FILENAME* DISK IN DRIVE 2

OK TO CONTINUE (Y/N)?

When this is done type **Y** to tell the computer you are ready to continue.

If the file is a new one the computer will ask for a county code. (The computer program is set up to accept only a four-letter code for the names of the counties, not the whole name). Typing a question mark (**?**) will display the following list of county codes:

ADAM	Adams
ASHL	Ashland
BARR	Barron
BAYF	Bayfield
BROW	Brown
BUFF	Buffalo
BURN	Burnett
CALU	Calumet
CHIP	Chippewa
CLAR	Clark
COLU	Columbia
CRAW	Crawford
DANE	Dane
DODG	Dodge
DOOR	Door
DOUG	Douglas
DUNN	Dunn
EAUC	Eau Claire
FOND	Fond du Lac
GRAN	Grant
GREE	Green
GRLA	Green Lake
IOWA	Iowa
JACK	Jackson
JEFF	Jefferson
JUNE	Juneau
KENO	Kenosha
KEWA	Kewaunee
LACR	La Crosse
LAFA	Lafayette
LANG	Langlade
LINC	Lincoln
MANI	Manitowoc
MARA	Marathon
MARI	Marinette
MARQ	Marquette
MILW	Milwaukee
MONR	Monroe
OCON	Oconto
OUTA	Outagamie
OZAU	Ozaukee
PEPI	Pepin
PIER	Pierce
POLK	Polk
PORT	Portage
PRIC	Price

RACI	Racine
RICH	Richland
ROCK	Rock
STCR	Saint Croix
SAUK	Sauk
SHAW	Shawano
SHEB	Sheboygan
TAYL	Taylor
TREM	Trempealeau
VERN	Vernon
WALW	Walworth
WASH	Washington
WAUK	Waukesha
WAUP	Waupaca
WAUS	Waushara
WINN	Winnebago
WOOD	Wood

You may enter the county code in small letters and the computer will capitalize it (though you won't see this on the screen). After you enter the county code and type **RETURN** the following screen will appear:

```
                    Wisconsin 1880 Census
                      CODE County
File FILENAME                                          Record 1

Subdivision:              Class:    Enumeration District:    Ward:

Page:      Line:     Street Name:                  House #:
Dwelling #:      Family #:      Last Name:

First Name(s):                          Race:  Sex:  Age:
Relationship:      Marital Status:    Married Within Year:
Occupation:                  Months Unemployed:
Illness:                     Blind:  Deaf/Dumb:  Idiotic:
Insane:  Disabled:  Attended School:  Cannot Read:  Cannot Write:
Birthplace:      Father's Birthplace:      Mother's Birthplace:
Auxiliary:


Left arrow - Move left      RETURN - Next field    CONTROL-F - Next record
Right arrow - Move right    TAB - Prev. field      CONTROL-B - Prev. record
CONTROL-A - Insert space    Down arrow - Next sect. CONTROL-G - Goto record x
DELETE - Del. character     Up arrow - Prev. sect. ? - Help
CONTROL-D - Delete to end of field                 CONTROL-C - Quit
```

This is the screen on which all of your data entry will take place. If you are starting on a new disk, it should say "Record 1"; if you are working with an old disk, the last record from your previous session will appear. The records you enter are numbered automatically as you go.

When there is no more room on the disk, the computer will tell you "DISK FULL / PUT A NEW DISK IN DRIVE 2, TYPE ANY KEY WHEN READY." Be sure to get a new filename when you get a new disk. Once you have typed a key, it returns to the screen on page 4. Enter your new filename and proceed as before. The last record you entered on the old disk will become the first record on the new disk.

Ordinarily, you will move from one field to the next by typing **RETURN**. At the bottom of the screen is a list of various ways you can move the cursor from one place to another quickly, if you need to go back to make corrections. To use the functions with

the **CONTROL** key, hold **CONTROL** down while you type the letter (just like you hold **SHIFT** down on a typewriter to make a capital letter). Experiment with the various functions until you get used to them (review the definitions of "record," "section," and "field" in section 3 if needed).

TAB moves back one field at a time. Both the up arrow (↑) and the down arrow (↓) move up or down, respectively, one section at a time. They both work in a circular fashion (i.e. typing the down arrow while in the last section moves the cursor to the first section.)

Simple typing errors can be corrected just by typing over the mistakes. If, for example, you typed **Joens** for **Jones**, just back up using the left arrow (←) and type **ne** over the **en**. Typing the right arrow (→) will move the cursor forward if you backed up too far. If you typed **Joes**, you could type **nes** over the **es**. You could also position the cursor over the **e**, press **CONTROL-A** (in order to insert a space), and type **n**. If you typed **Jonnes**, position the cursor over one of the **n**'s and press **DELETE**. Notice how the **es** automatically moves over after the **n** is deleted.

Move the cursor to the Last Name field and try the above "Jones" examples.

Using the record functions (**CONTROL-F** - next record, **CONTROL-B** - previous record, **CONTROL-G** - go to a record you specify) takes some time because the disk has to spin while it finds and displays the record you want. **CONTROL-G** allows you to go to any record on the disk, instead of moving backwards or forwards one record at a time. The computer will ask you for the number of the record you want, and you may have to guess a few times before you narrow it down.

Use **CONTROL-L** to delete the list of special functions at the bottom of the screen. Another **CONTROL-L** will make them reappear.

Each field has its own HELP message, which will explain briefly the sorts of things that are explained fully in this manual. Most questions you may have while typing will be answered in these messages. To get a HELP message, move the cursor to the field you have a question about, and type a question mark.

To end your session, type **CONTROL-C**. It is very important that you use only the **CONTROL-C** to end your session (don't just turn the machine off) because typing the **CONTROL-C** saves necessary information on the disk. You will then see the same screen that appears on page 4. To exit type **CONTROL-C** again and turn off both switches.

Any of the function keys can by typed in any field, and at any point within a field.

5. CENSUS DATA ENTRY

The computer program is set up so that a lot of the information that is the same from line to line in the census is automatically repeated on the screen. Once you type in the county name, community name, type of community, enumeration district, page number, street, house number, dwelling number, family number, and surname, these will remain constant until you change them. In addition the line number will automatically increase by one each time you start a new record.

In the Subdivision field enter the name of the community only. Do not include the type of community like City, Town, Township, or Village.

In the Class field enter the type of the community, using the following codes:
C - City
T - Town/Township
V - Village

In the Enumeration District field enter the **Enumeration Dist. No.** located at the top of the census page.

In the Ward field enter the name of the ward. Usually only the larger cities are divided into wards. This field will be blank when indexing rural areas. Wards will usually be numbered, but sometimes words will be used. Use a maximum of two characters to name a ward. If it says "East" enter "E", if "Southwest" enter "SW". See appendix B for a list of cities divided into wards.

In the Page field enter the page number. Do not enter the manuscript **Page No.** written in by the census taker. Enter the sheet number stamped in ink followed by the capital letter in the corner of the page. You may enter a small letter and the computer will capitalize it.

In the Line field enter the line number. As explained above, this will automatically increase by one, but you must remember to adjust this if the census taker left a blank line.

In the Street Name field enter the name of the street including the direction. For example: Enter "East Main St." not just "Main St." The street name is written, if at all, vertically in the leftmost column of the census page. Leave blank if there is no street name given.

In the House # field enter the house number. (Not all named streets had numbered houses.) Use "H" to mean "1/2"; for example, if it says "7454 1/2" enter "7454H".

In the Dwelling # field enter the dwelling number from column 1.

In the Family # field enter the family number from column 2.

In the Last Name field enter the surname from column 3. Often a new last name will be shorter than the previous one. A fast way to delete the remaining characters, once you've typed the new name, is to type **CONTROL-D**.

Enter last names beginning with Mc or Mac all in capitals with no spaces, and enter names beginning with O' without the apostrophe. Examples:

enter McDonald or Mc Donald as MCDONALD;
enter O'Brian or OBrian or Obrian as OBRIAN.

In the First Name(s) field enter the first name and middle initial(s) or name(s) from column 3. If the name is abbreviated (Chas.) you can spell it out (Charles) if you're sure what the abbreviation means. If in doubt, just type what it says. "Jno." is an old-fashioned abbreviation for "John". Do not enter periods after initials.

In the Race field enter color/race from column 4 according to the following codes:
W - White
B - Black
M - Mulatto (part black and part white)
C - Chinese
I - Indian/Native American

You can leave this field blank if the person is white, and the computer will automatically enter a "W" (although you won't see this on the screen).

In the Sex field enter sex of person from column 5 according to the following codes:
M - Male
F - Female

In the Age field enter age from column 6. Enter ages less than a year as the letter "M" followed by the number of months. Ignore the months if over one year. Examples: If it says "7/12" you enter "M7"; if it says "1 9/12" you enter "1". Enter ages less than one month as "M0". You may type in a small "m" and the computer will capitalize it.

In the Relationship field enter the relationship to the head from column 8. Leave blank if it says "Head" or is blank. Use the following codes:

ADA	Adopted Daughter
ASN	Adopted Son
ANT	Aunt
BOA	Boarder
BRO	Brother
BRL	Brother-in-Law
COU	Cousin
DAU	Daughter
DAL	Daughter-in-Law
FAT	Father
FAL	Father-in-Law
GAT	Grand-Aunt
GDA	Granddaughter
GFA	Grandfather
GMA	Grandmother
GNP	Grand-Nephew
GNI	Grand-Niece
GSN	Grandson
GUC	Grand-Uncle
GGD	Great-Granddaughter
GGF	Great-Grandfather
GGM	Great-Grandmother
GGS	Great-Grandson
HUS	Husband
INM	Inmate
MOT	Mother
MOL	Mother-in-Law
NEP	Nephew
NIE	Niece
OTH	Other/Unknown
ROO	Roomer
SER	Servant
SIS	Sister
SIL	Sister-in-Law
SON	Son
SOL	Son-in-Law
SDA	Stepdaughter
SFA	Stepfather
SMA	Stepmother
SSN	Stepson
UNC	Uncle
WIF	Wife
WOR	Worker

In the Marital Status field enter the marital status from columns 9-11 using the following codes:
S - Single
M - Married
W - Widowed
D - Divorced
Blank - None given

If the marital status of a person under 16 years old is not given, assume they are single. A mark in the widowed/divorced column means widowed; a capital D means divorced.

In the Married Within Year field indicate if married within the census year from column 12 using the following codes:
Y - Yes
N or Blank - No

In the Occupation field enter the occupation from column 13. Omit the following occupations: **At school, At home, Keeping house, Housekeeper, and Boarder** (unless listed as "servant" in the relationship column). Leave blank if blank in census.

In the Months Unemployed field enter number of months unemployed from column 14. Leave blank if blank in census.

In the Illness field enter illness from column 15. Leave blank if blank in census.

In the Blind field indicate if blind from column 16 using the following codes:
Y - Yes
N or Blank - No

In the Deaf/Dumb field indicate if deaf/dumb from column 17 using the following codes:
Y - Yes
N or Blank - No

In the Idiotic field indicate if idiotic from column 18 using the following codes:
Y - Yes
N or Blank - No

In the Insane field indicate if insane from column 19 using the following codes:
Y - Yes
N or Blank - No

In the Disabled field indicate if disabled from column 20 using the following codes:
Y - Yes
N or Blank - No

In the Attended School field indicate if attended school during census year from column 21 using the following codes:
Y - Yes
N or Blank - No

In the Cannot Read field indicate if unable to read from column 22 using the following codes:
Y - Yes
N or Blank - No

In the Cannot Write field indicate if unable to write from column 23 using the following codes:
Y - Yes
N or Blank - No

Birthplaces are coded with two letters for places within the United States and with three letters for foreign places. Sometimes the birthplaces are abbreviated, and so it will be up to you to figure them out as best you can. In addition Germany was, in the 19th century, divided into many small, semi-independent states. Each of these has its own code and it would be a good idea to read over the list below before you start to index. If the birthplace is not on the lists below, or is unreadable, enter "XXX". If the birthplace is Wisconsin, you can leave the field blank.

In the Birthplace, Father's Birthplace, and Mother's Birthplace fields enter the places of birth from columns 24, 25, and 26 using the following codes:

STATE CODES:

AL	Alabama
AZ	Arizona Territory
AR	Arkansas
CA	California
CO	Colorado
CT	Connecticut
DK	Dakota Territory
DE	Delaware
DC	District of Columbia
FL	Florida
GA	Georgia
ID	Idaho Territory
IL	Illinois
IN	Indiana
IA	Iowa
KS	Kansas
KY	Kentucky
LA	Louisiana
ME	Maine
MD	Maryland
MA	Massachusetts
MI	Michigan
MN	Minnesota
MS	Mississippi
MO	Missouri
MT	Montana Territory
NE	Nebraska
NV	Nevada
NH	New Hampshire
NJ	New Jersey
NM	New Mexico Territory
NY	New York
NC	North Carolina
OH	Ohio
OR	Oregon
PA	Pennsylvania
RI	Rhode Island
SC	South Carolina
TN	Tennessee
TX	Texas
UT	Utah Territory
VT	Vermont
VA	Virginia
WA	Washington Territory
WV	West Virginia
WI	Wisconsin
WY	Wyoming Territory
US	America or United States (unspecified)

COUNTRY CODES:

AFR	Africa
ANT	Antigua
ASI	Asia (unspecified)
ATL	Atlantic Islands
AUT	Australia
AUS	Austria
AZO	Azores
BAR	Barbados
BEL	Belgium
BER	Bermuda
BOH	Bohemia
BAM	British America
CAN	Canada
CNR	Canary Islands
CEN	Central America
CUB	Cuba
DEN	Denmark
ENG	England

EUR	Europe (unspecified)
FIN	Finland
FRA	France
GER	Germany
GIB	Gibraltar
GBR	Great Britain
GRE	Greece
GRN	Grenada
HOL	Holland
HUN	Hungary
IND	India
IRE	Ireland
IOM	Isle of Man
ITA	Italy
JAP	Japan
LEB	Lebanon
LUX	Luxembourg
MAL	Malta
MEX	Mexico
HOL	Netherlands
NBR	New Brunswick
NWF	Newfoundland
NOR	Norway
NSC	Nova Scotia
PAC	Pacific Islands
POL	Poland
POR	Portugal
PEI	Prince Edward Island
RUS	Russia
HI	Sandwich Islands (Hawaii)
SCO	Scotland
SAF	South Africa
SAM	South America
SPA	Spain
SWE	Sweden
SWI	Switzerland
SYR	Syria
TRI	Trinidad
TUR	Turkey
WAL	Wales
WIN	West Indies
SEA	At Sea

GERMAN STATE CODES:

ALS	Alsace
ALL	Alsace-Lorraine
ANH	Anhalt
BAD	Baden
BAV	Bavaria/Bayern/Biron
BRA	Brandenburg
BRU	Brunswick/Braunschweig
HAM	Hamburg
HAN	Hanover/Hannover
HES	Hesse/Hessen
HCA	Hesse-Cassel/Hesse-Kassel
HDA	Hesse-Darmstadt
HHO	Hesse-Homburg
HPH	Hesse-Philippstha!
HPB	Hesse-Philippsthal-Barchfeld
HOH	Hohenzollern
HHE	Hohenzollern-Hechingen
HSI	Hohenzollern-Sigmaringen
LIP	Lippe
LBI	Lippe-Biesterfeld
LWI	Lippe-Weissenfeld
LUE	Luebeck/Lubeck
MEC	Mecklenburg
MSC	Mecklenburg-Schwerin
MST	Mecklenburg-Strelitz
MOR	Moravia
NAS	Nassau
OLD	Oldenburg
POM	Pomerania/Pommern
PRU	Prussia/Preussen
SXA	Saxe-Altenburg
SXC	Saxe-Coburg
SXM	Saxe-Meiningen
SXW	Saxe-Weimar
SAX	Saxony/Sachsen
SLI	Schaumburg-Lippe
SHO	Schleswig-Holstein
SCR	Schwarzburg-Rudolstadt
SCS	Schwarzburg-Sondershausen
SIL	Silesia
WLD	Waldeck
WEI	Weimar
WUR	Wurttemburg/Wuerttemburg

Use the Auxiliary field to mark a record you're unsure about with an asterisk (*); these records will be specially reviewed later.

6. HINTS FOR SOLVING PROBLEMS AND ADDITIONAL INFORMATION

Problems:

There are several types of problems that may crop up: Accidentally turning the machine off while you are still running the program, a power failure, or the program aborting for some reason (see next paragraph). As mentioned before, typing **CONTROL-C** causes the computer to first put necessary information on the disk about the file before quitting. If the program is stopped in any unusual way, it will not have a chance to put that information on the disk. So if you tried to run it again with the same disk it may appear that all your hard work has just vanished into oblivion. However, there is good news: in most cases, all will not be lost. While you are at the screen pictured on page 4, type **CONTROL-C**. Then, at the Applesoft prompt, which is the right square bracket (]) type **RUN FIX, D1** followed by a **RETURN**. When the computer asks "ENTER DATA FILENAME:" enter your filename followed by a **RETURN**. The computer will then look at your file and fix it if at all possible.

Should the program come across an error situation that it can't recover from, it will say "ERROR e IN LINE n / UNABLE TO CONTINUE, PROGRAM ABORTED", where "e" is the error number and "n" is the line it occurred in. Make a note of both the error and line numbers and what you had been doing before the error happened. Give this information to Phil Slinger to send to Madison so that we can fix the program so that it won't happen again. You may then run the census program again (see next paragraph).

Additional information:

The program can be rerun without turning the computer off and then back on. If you have typed **CONTROL-C** twice to get out of the program and then wish to run it again, at the Applesoft prompt (]) just type **RUN** followed by a **RETURN**. If you have been using some other program like "DISPLAY" or "FIX", you will have to type **RUN CENSUS, D1** followed by a **RETURN**.

There is a speedy way to look at a condensed version of the information on the disk. To do this type in at the Applesoft prompt **RUN DISPLAY, D1**. When the computer asks "ENTER DATA FILENAME:" enter the filename. It will then ask you "ENTER RECORD TO START WITH:" and "ENTER NUMBER OF RECORDS TO DISPLAY:". Once you have entered the record number to start with and the number of records to display, the computer will display them, breaking each record up into three lines. Each line will be prefixed with its record number, a period, and a one, two, or three. The number following the period tells which third of the record is on that line. Use **CONTROL-S** to temporarily stop the display. Another **CONTROL-S** will start it up again.

APPENDIX A

Population totals for Wisconsin counties, 1880.

Adams	6,741	Manitowoc	37,505
Ashland	1,559	Marathon	17,121
Barron	7,024	Marinette	8,929
Bayfield	564	Marquette	8,908
Brown	34,078	Milwaukee	138,537
Buffalo	15,528	Monroe	21,607
Burnett	3,140	Oconto	9,740
Calumet	16,632	Outagamie	28,646
Chippewa	15,491	Ozaukee	15,461
Clark	10,715	Pepin	6,225
Columbia	28,085	Pierce	17,663
Crawford	15,644	Polk	9,775
Dane	53,233	Portage	17,720
Dodge	45,931	Price	777
Door	11,645	Racine	30,761
Douglas	655	Richland	18,143
Dunn	16,817	Rock	38,607
Eau Claire	19,993	Saint Croix	18,926
Fond du Lac	46,859	Sauk	28,008
Grant	37,852	Shawano	10,078
Green	21,729	Sheboygan	34,203
Green Lake	14,483	Taylor	2,296
Iowa	23,628	Trempealeau	17,169
Jackson	13,285	Vernon	23,105
Jefferson	32,156	Walworth	26,194
Juneau	15,582	Washington	23,440
Kenosha	13,550	Waukesha	28,893
Kewaunee	15,807	Waupaca	20,935
La Crosse	27,073	Waushara	12,655
Lafayette	21,279	Winnebago	42,652
Langlade	685	Wood	8,961
Lincoln	2,011		

APPENDIX B

Population totals for towns, villages, and wards of cities, 1880.

ADAMS

Adams town	447
Big Flats town	158
Dell Prairie town	500
Easton town	450
Jackson town	482
Leola town	238
Lincoln town	434
Monroe town	448
New Chester town	304
New Haven town	836
Preston town	136
Quincy town	397
Richfield town	308
Rome town	219
Springville town	437
Strong's Prairie town	947

ASHLAND

Ashland town	951
Butternut town	608

BARRON

Barron town	353
Cedar Lake town	351
Clinton town	203
Cumberland town	642
Dallas town	694
Lakeland town	77
Maple Grove town	505
Prairie Farm town	828
Rice Lake town	454
Shetek (Chetek) town	1,286
Stamfold town	926
Sumner town	479
Turtle Lake town	226

BAYFIELD

Bayfield town	564

BROWN

Allouez town	259
Ashwaubenon town	404
Bellevue town	777
Depere town	817
Depere village	1,954
Eaton town	686
Fort Howard city	3,083
Glenmore town	1,070
Green Bay city	7,464
Ward 1	1,207
2	2,950

BROWN (Continued)

Green Bay city (continued)	
Ward 3	3,307
Green Bay town	1,085
Holland town	1,448
Howard town	1,171
Humboldt town	1,060
Lawrence town	837
Morrison town	1,543
New Denmark town	1,386
Pittsfield town	712
Preble town	1,153
Rockland town	803
Scott town	1,352
Suamico town	948
West Depere village	1,870
Wrightstown town	2,196

BUFFALO

Alma town	731
Alma village	1,244
Belvidere town	723
Buffalo city	248
Buffalo town	655
Canton town	738
Cross town	700
Dover town	722
Fountain City village	963
Gilmanton town, including Gilmanton village	540
Gilmanton village	58
Glencoe town	852
Lincoln town	673
Maxville town	414
Milton town	441
Modena town	811
Montana town	847
Naples town	1,625
Nelson town	1,651
Waumandee town	950

BURNETT

Bashaw town	160
Grantsburg town	1,613
Marshland town	302
Trade Lake town	580
Wood Lake town	485

CALUMET

Brillion town	1,492
Brothertown town	1,752
Charlestown town	1,354
Chilton city	1,132
Chilton town	1,361

CALUMET (Continued)

Harrison town	2,036
New Holstein town	2,059
Rantoul town	1,761
Stockbridge town	2,172
Woodville town	1,513

CHIPPEWA

Anson town	723
Auburn town	1,232
Big Bend town	231
Bloomer town	1,582
Chippewa Falls city	3,982
Ward 1	1,202
2	1,248
3	777
4	755
Eagle Point town	2,564
Edson town	882
Flambeau town	251
La Fayette town	1,903
Sigel town	856
Wheaton town	1,285

CLARK

Beaver town	263
Colby town	813
Eaton town	453
Fremont town	203
Grant town	881
Hewitt town	156
Hixon town	500
Lewis town	266
Loyal town	550
Lynn town	247
Mayville town	1,249
Mentor town	754
Pine Valley town	1,732
Sherman town	300
Sherwood Forest town	115
Thorp town	257
Unity town	381
Warner town	435
Washburn town	153
Weston town	530
York town	477

COLUMBIA

Arlington town	1,022
Caledonia town	1,297
Columbus city	1,876
Columbus town	805
Courtland town, incl. part of Cambria vill.	1,321
Cambria village (part of)	409
Dekorra town	1,278
Fort Winnebago town	689
Fountain Prairie town	1,300
Hampden town	944
Leeds town	1,157

COLUMBIA (Continued)

Lewiston town	993
Lodi town, including Lodi village	1,462
Lodi village	723
Lowville town	818
Marcellon town	835
Newport town, incl. Kilbourn city village	1,520
Kilbourn City village	945
Otsego town	1,442
Pacific town	249
Portage city	4,346
Ward 1	644
2	800
3	897
4	891
5	1,114
Randolph town incl. part of Cambria village	1,057
Cambria village (part of)	95
Randolph village (part of)	64
Scott town	830
Springvale town	680
West Point town	852
Wyocena town	1,228

CRAWFORD

Bridgeport town	448
Clayton town	1,976
Eastman town	1,459
Freeman town	1,544
Haney town	636
Marietta town	1,037
Prairie du Chien city	2,777
Ward 1	689
2	953
3	723
4	412
Prairie du Chien town	724
Scott town	1,046
Seneca town	1,446
Utica town	1,496
Wauzeka town	1,055

DANE

Albion town	1,351
Berry town	1,066
Black Earth town	902
Blooming Grove town	927
Blue Mounds town	1,009
Bristol town	1,139
Burke town	1,002
Christiana town	1,859
Cottage Grove town	1,159
Cross Plains town	1,331
Dane town	1,161
Deerfield town	972
Dunkirk town	1,283
Dunn town, including McFarland village	1,140
McFarland village	168
Fitchburg town	978

DANE (Continued)

Madison city	10,324
Ward 1	2,248
2	2,003
3	2,516
4	2,010
5	1,547
Madison town	735
Mazomanie town	1,646
Medina town	1,406
Middleton town	1,513
Montrose town	1,108
Oregon town, including Oregon village	1,514
Oregon village	527
Perry town	924
Pleasant Springs town	1,278
Primrose town	888
Roxbury town	1,157
Rutland town	1,133
Springdale town	1,006
Springfield town	1,240
Stoughton village	1,353
Sun Prairie town	923
Sun Prairie village	597
Vermont town	961
Verona town	1,017
Vienna town	1,051
Westport town	1,987
Windsor town	1,210
York town	983

DODGE

Ashippun town	1,369
Beaver Dam city	3,416
Ward 1	584
2	850
3	1,009
4	973
Beaver Dam town	1,405
Burnett town incl. Burnett Junction village	1,117
Burnett Junction village	113
Calamus town	1,166
Chester town	750
Clyman town	1,235
Elba town	1,341
Emmett town	1,263
Fox Lake town, including Fox Lake village	1,791
Fox Lake village	955
Herman town	1,641
Hubbard town incl. part of Horicon village	3,249
Horicon village (part of)	1,194
Hustisford town	1,666
Lebanon town	1,580
Le Roy town	1,588
Lomira town	1,845
Lowell town	2,580
Oak Grove town incl. the following villages	2,227
Horicon village (part of)	56
Juneau village	454
Portland town	1,271
Randolph village (part of)	357

DODGE (Continued)

Rubicon town	1,660
Shields town	1,025
Theresa town	2,018
Trenton town	1,624
Watertown city (part of)	2,092
Ward 5	721
6	1,371
Waupun city (south ward)	1,314
Westford town	1,098
Williamstown town incl. Mayville village	2,243
Mayville village	1,051

DOOR

Bailey's Harbor town	540
Brussels town	999
Clay Banks town	653
Egg Harbor town	730
Forestville town	1,042
Gardner town	603
Gibralter town	832
Jacksonport town	432
Liberty Grove town	1,092
Nasewaupee town	762
Sevastopol town	865
Sturgeon Bay town, incl. Sturgeon Bay vill.	2,049
Sturgeon Bay village	1,199
Union town	610
Washington town	427

DOUGLAS

Superior town	655

DUNN

Colfax town	460
Dunn town	1,115
Eau Galle town	1,154
Elk Mound town	588
Grant town	457
Hay River town	340
Lucas town	497
Menomonie town	4,177
New Haven town	269
Otter Creek town	219
Peru town	296
Red Cedar town	786
Rock Creek town	613
Sand Creek town	667
Sheridan town	687
Sherman town	548
Spring Brook town	1,304
Stanton town	967
Tainter town	754
Tiffany town	413
Weston town	506

EAU CLAIRE

Bridge Creek town, incl. Augusta village	1,894

EAU CLAIRE (Continued)

Augusta village	1,116
Brunswick town	898
Drammen town	401
Eau Claire city	10,119
Ward 1	1,356
2	1,027
3	1,070
4	988
5	1,255
6	1,568
7	1,283
8	1,572
Fairchild town, including Fairchild village	887
Fairchild village	304
Lincoln town	1481
Ludington town	212
Otter Creek town	1,060
Pleasant Valley town	941
Seymour town	515
Union town	631
Washington town	954

FOND DU LAC

Alto town	1,335
Ashford town	2,038
Auburn town	1,651
Bryon town	1,284
Calumet town	1,447
Eden town	1,404
Eldorado town	1,617
Empire town	1,065
Fond du Lac city	13,094
Ward 1	1,765
2	2,446
3	1,939
4	2,455
5	884
6	1,221
7	1,068
8	1,316
Fond du Lac town	1,354
Forest town	1,388
Friendship town	1,013
Lamartine town	1,378
Marshfield town	2,044
Metomen town, including Brandon village	1,808
Brandon village	601
Oakfield town	1,304
Osceola town	1,363
Ripon town, including Ripon city	4,274
Ripon city	3,117
Ward 1	1,593
2	1,524
Rosendale town	1,193
Springvale town	1,158
Taycheedah town	1,376
Waupun city (North ward)	1,039
Waupun town	1,232

GRANT

Beetown town	1,530
Bloomington town	1,229
Boscobel town, including Boscobel city	1,616
Boscobel city	1,428
Cassville town, including Cassville village	1,301
Cassville village	610
Castle Rock town	770
Clifton town	1,078
Ellenboro town	777
Fennimore town	1,126
Glen Haven town	1,022
Harrison town	1,090
Hazel Green town, incl. Hazel Green village	1,821
Hazel Green village	598
Hickory Grove town	771
Jamestown town	1,215
Lancaster town, including Lancaster city	2,810
Lancaster city	1,069
Liberty town	895
Lima town	1,154
Little Grant town	718
Marion town	639
Millville town	204
Mount Hope town	742
Mount Ida town	871
Muscoda town	1,226
Paris town	876
Patch Grove town	826
Platteville town, including Platteville city	3,813
Platteville city	2,687
Potosi town	2,375
Smelser town	1,283
Waterloo town	1,029
Watterstown town	595
Wingville town	1,178
Woodman town	553
Wyalusing town	719

GREEN

Adams town	930
Albany town	1,133
Brooklyn town	1,176
Cadiz town	1,358
Clarno town	1,422
Decatur town, including Brodhead village	1,920
Brodhead village	1,254
Exeter town	893
Jefferson town	1,437
Jordan town	1,094
Monroe town, including Monroe village	4,195
Monroe village	3,293
Mount Pleasant town	1,086
New Glarus town	1,060
Spring Grove town	1,166
Sylvester town	928
Washington town	882
York town	1,049

GREEN LAKE

Berlin city	3,353
Ward 1	1,511
2	742
3	1,100
Berlin town	791
Brooklyn town, including Dartford village	1,364
Dartford village	241
Green Lake town	1,407
Kingston town	825
Mackford town, including Markesan village	1,382
Markesan village	361
Manchester town	1,199
Marquette town	938
Princeton town, including Princeton village	2,074
Princeton village	961
Sainte Marie town	705
Seneca town	445

IOWA

Arena town, including Arena village	1,796
Arena village	266
Clyde town	715
Dodgeville town, incl. Dodgeville village	3,540
Dodgeville village	1,547
Eden town	909
Highland town, including Highland village	2,436
Highland village	668
Linden town	1,996
Mifflin town	1,529
Mineral Point city	2,915
Mineral Point town	1,490
Moscow town	921
Pulaski town	1,402
Ridgeway town	2,348
Waldwick town	896
Wyoming town	735

JACKSON

Albion town incl. Black River Falls village	2,889
Black River Falls village	1,427
Alma town	1,802
Franklin town	531
Garden Valley town	1,111
Hixton town	1,353
Irving town	898
Manchester town	505
Melrose town	1,320
Millston town	463
Northfield town	1,175
Springfield town	838
Sullivan town	400

JEFFERSON

Aztalan town, including part of Johnson's Creek village	1,332
Johnson's Creek village (part of)	69
Cold Spring town	588
Concord town	1,457

JEFFERSON (Continued)

Farmington town, incl. part of Johnson's Creek village	2,039
Johnson's Creek village (part of)	139
Hebron town, including Hebron village	1,118
Hebron village	142
Ixonia town	1,597
Jefferson town, including Jefferson city	3,788
Jefferson city	2,115
Ward 1	532
2	864
3	719
Koshkonong town, incl. Fort Atkinson city	3,406
Fort Atkinson city	1,969
Lake Mills town, incl. Lake Mills village	1,568
Lake Mills village	671
Milford town, including Milford village	1,460
Milford village	138
Oakland town	1,043
Palmyra town, including Palmyra village	1,361
Palmyra village	598
Sullivan town	1,357
Sumner town	532
Waterloo town, including Waterloo village	1,768
Waterloo village	719
Watertown city (part of)	5,791
Ward 1	1,850
2	1,553
3	921
4	541
7	926
Watertown town	1,951

JUNEAU

Armenia town	296
Clearfield town	283
Fountain town	815
Germantown town	681
Kildare town	557
Kingston town	111
Lemonweir town	1,011
Lindina town	1,062
Lisbon town	491
Lyndon town	460
Marion town	372
Mauston village	1,013
Necedah town, including Necedah village	1,855
Necedah village	1,475
New Lisbon village	1,024
Orange town	538
Plymouth town, including Elroy village	1,503
Elroy village	663
Seven Mile Creek town	785
Summit town	1,014
Wonewoc town, including Wonewoc village	1,711
Wonewoc village	635

KENOSHA

Brighton town	1,024
Bristol town	1,069

KENOSHA (Continued)

Kenosha city	5,039
Ward 1	1,777
2	1,192
3	1,098
4	972
Paris town	1,002
Pleasant Prairie town	1,386
Randall town	451
Salem town including Wilmot village	1,286
Wilmot village	190
Somers town	1,458
Wheatland town incl. New Munster village	835
New Munster village	87

KEWAUNEE

Ahnapee city	948
Ahnapee town	1,430
Carlton town	1,604
Casco town	1,659
Franklin town	1,601
Kewaunee town, incl. Kewaunee village	1,352
Kewaunee village	1,050
Lincoln town	1,147
Montpelier town	1,405
Pierce town	1,743
Red River town	1,582
West Kewaunee town	1,336

LA CROSSE

Bangor town	1,196
Barre town	656
Burns town	1,021
Campbell town	885
Farmington town	1,686
Greenfield town	869
Hamilton town	1,661
Holland town	874
La Crosse city	14,505
Ward 1	3,168
2	1,958
3	5,112
4	1,342
5	2,925
Onalaska town	1,916
Shelby town	796
Washington town	1,008

LA FAYETTE

Argyle town	1,225
Belmont town	1,244
Benton town	1,519
Blanchard town	622
Darlington town, including Darlington city	2,599
Darlington city	1,372
Elk Grove town	959
Fayette town	1,148
Gratiot town	1,634
Kendall town	849

LA FAYETTE (Continued)

Monticello town	413
New Diggings town	1,641
Seymour town	898
Shullsburg town, incl. Shullsburg village	2,245
Shullsburg village	1,168
Wayne town	1,056
White Oak Springs town	451
Willow Springs town	1,089
Wiota town	1,687

LANGLADE

Carpenter town	44
Langlade town	368
Springbrook town	273

LINCOLN

Ackley town	184
Corning town	112
Jenny town	1,336
Pine River town	278
Rock Falls town	101

MANITOWOC

Cato town	1,875
Centreville town	1,560
Cooperstown town	1,700
Eaton town	1,524
Franklin town	1,875
Gibson town	1,739
Kossuth town	2,168
Liberty town	1,387
Manitowoc city	6,367
Manitowoc town	1,282
Manitowoc Rapids town	2,077
Maple Grove town	1,523
Meeme town	1,684
Mishicot town	1,568
Newton town	1,867
Rockland town	1,234
Schleswig town	2,069
Two Creeks town	630
Two Rivers city	2,052
Two Rivers town	1,324

MARATHON

Bergen town	450
Berlin town	1,000
Brighton town	726
Easton town	186
Hamburg town	563
Holton town	490
Hull town	720
Knowlton town	379
Maine town	880
Marathon town	871
Mosinee town, including Mosinee village	882
Mosinee village	201

MARATHON (Continued)

Rib Falls town	574
Rietbrock town	409
Spencer town	1,091
Stettin town	684
Texas town	458
Wausau city	4,277
Wausau town	1,061
Weston town	968
Wien town	452

MARINETTE

Marinette town	5,412
Peshtigo town	3,517

MARQUETTE

Buffalo town	750
Crystal Lake town	644
Douglas town	657
Harris town	534
Mecan town	621
Montello town, including Montello village	950
Montello village	394
Moundville town	334
Neshkoro town	589
Newton town	724
Oxford town	532
Packwaukee town	691
Shields town	620
Springfield town	428
Westfield town	834

MILWAUKEE

Franklin town	1,819
Granville town	2,370
Greenfield town	2,674
Lake town, including Bay View village	5,430
Bay View Village	2,852
Milwaukee city	115,587
Ward 1	11,016
2	14,406
3	6,891
4	12,491
5	8,641
6	9,639
7	7,192
8	7,908
9	10,006
10	8,895
11	8,881
12	5,448
13	4,172
Milwaukee town	3,472
Oak Creek town	2,097
Wauwatosa town	5,088

MONROE

Adrian town	715

MONROE (Continued)

Angelo town	469
Byron town	415
Clifton town	884
Glendale town	1,401
Greenfield town	586
Jefferson town	1,087
La Fayette town	402
La Grange town	839
Leon town	748
Lincoln town	975
Little Falls town	705
New Lyme town	140
Oakdale town	733
Portland town	1,056
Ridgeville town	1,286
Sheldon town	794
Sparta town, including Sparta village	3,459
Sparta village	2,387
Tomah town, including Tomah village	2,106
Tomah village	1,245
Wellington town	1,050
Wells town	658
Wilton town	1,099

OCONTO

Gillett town	637
Howe town	178
Little River town	695
Little Suamico town	942
Maple Valley town	589
Oconto city	4,171
Ward 1 (north)	785
2 (west)	810
3 (south)	1,519
4 (east)	1,057
Oconto town	893
Pensaukee town	1,420
Stiles town	323

OUTAGAMIE

Appleton city	8,005
Ward 1	1,273
2	2,662
3	1,616
4	870
5	859
6	725
Black Creek town	1,285
Bovina town	690
Buchanan town	1,010
Center town	1,596
Cicero town	777
Dale town	1,123
Deer Creek town	653
Ellington town	1,377
Freedom town	1,663
Grand Chute town	1,578
Greenville town	1,326
Hortonia town	1,193

OUTAGAMIE (Continued)

Kaukauna town	2,235
Liberty town	504
Maine town	403
Maple Creek town	818
New London city (part of)	256
Osborn town	612
Seymour city	850
Seymour town	762

OZAUKEE

Belgium town	1,948
Cedarburg town	2,536
Fredonia town	1,839
Grafton town	1,570
Mequon town	3,023
Port Washington town	2,604
Saukville town	1,941

PEPIN

Albany town	431
Durand town, including Durand village	879
Durand village	642
Frankfort town	639
Lima town	605
Pepin town	1,515
Stockholm town	763
Waterville town	1,197
Waubeek town	197

PIERCE

Clifton town	703
Diamond Bluff town	534
El Paso town	690
Ellsworth town	1,502
Gilman town	888
Hartland town	1,215
Isabelle town	250
Maiden Rock town	1,375
Martel town	1,284
Oak Grove town	973
Prescott city	975
River Falls town	2,516
Rock Elm town	899
Salem town	478
Spring Lake town	843
Trenton town	737
Trimbelle town	1,148
Union town	734

POLK

Alden town	1,274
Apple River town	412
Balsam Lake town	357
Black Brook town	722
Clam Falls town	115
Clayton town	546
Clear Lake town	809

POLK (Continued)

Eureka town	595
Farmington town	968
Georgetown town	123
Laketown town	461
Lincoln town	557
Loraine town	109
Luck town	270
Milltown town	282
Osceola town	1,297
Saint Croix Falls town	542
Sterling town	406
West Sweden town	173

PORTAGE

Alban town	310
Almond town	872
Amherst town	1,375
Belmont town	535
Buena Vista town	830
Carson town	426
Eau Plaine town	598
Grant town	309
Hull town	1,044
Lanark town	663
Linwood town	406
New Hope town	801
Pine Grove town	339
Plover town	1,220
Sharon town	1,639
Stevens Point city	4,449
Ward 1	1,020
2	1,378
3	1,063
4	988
Stevens Point town	569
Stockton town	1,346

PRICE

Brannan town	278
Fifield town	230
Worcester town	277

RACINE

Burlington town	2,738
Caledonia town	2,654
Dover town	927
Mount Pleasant town	2,166
Norway town	981
Racine city	16,031
Ward 1	1,414
2	1,796
3	2,892
4	3,916
5	3,740
6	2,273
Raymond town	1,667
Rochester town	775
Waterford town	1,451

RACINE (Continued)

Yorkville town	1,532

RICHLAND

Akan town	841
Bloom town	1,358
Buena Vista town	1,075
Dayton town	1,109
Eagle town	1,303
Forest town	950
Henrietta town	1,005
Ithaca town	1,110
Marshall town	989
Orion town	733
Richland town, incl. Richland Center village	2,048
Richland Center village	1,227
Richwood town	1,515
Rockbridge town	1,200
Sylvan town	1,035
Westford town	1,002
Willow town	901

ROCK

Avon town	815
Beloit city	4,790
Ward 1	1,304
2	1,006
3	1,229
4	1,251
Beloit town	707
Bradford town	979
Center town	1,105
Clinton town	2,126
Fulton town	2,244
Harmony town	1,085
Janesville city	9,018
Ward 1	2,313
2	1,778
3	1,415
4	2,495
5	1,017
Janesville town	900
Johnstown town	1,217
La Prairie town	819
Lima town	1,094
Magnolia town	1,143
Milton town	1,794
Newark town	1,130
Plymouth town	1,245
Porter town	1,224
Rock town	1,006
Spring Valley town	1,172
Turtle town	1,133
Union town, including Evansville village	2,077
Evansville village	1,068

SAINT CROIX

Baldwin town, including Baldwin village	1,228
Baldwin village	591

SAINT CROIX (Continued)

Cady town	516
Cylon town	716
Eau Galle town	646
Emerald town	619
Erin Prairie town	1,013
Hammond town	1,418
Hudson city	2,298
Ward 1	455
2	1,061
3	782
Hudson town	665
Kinnickinnic town	778
New Richmond town, including part of New Richmond village	1,386
New Richmond village (part of)	573
Pleasant Valley town	593
Rush River town	677
Saint Joseph town	642
Somerset town	968
Springfield town	1,372
Stanton town	752
Star Prairie town, including part of New Richmond village	944
New Richmond village (part of)	156
Troy town	979
Warren town	746

SAUK

Baraboo town, including Baraboo village	4,594
Baraboo village	3,266
Bear Creek town	808
Dellona town	580
Delton town	857
Excelsior town	1,109
Fairfield town	744
Franklin town	1,010
Freedom town	1,332
Greenfield town	792
Honey Creek town	1,248
Ironton town	1,310
Lavalle town	1,364
Merrimack town	829
Prairie du Sac town, incl. Sauk City village	1,963
Sauk City village	917
Reedsburg town, incl. Reedsburg village	2,546
Reedsburg village	1,331
Spring Green town, incl. Spring Green vill.	1,090
Spring Green village	450
Sumpter town	746
Troy town	1,029
Washington town	1,175
Westfield town	1,462
Winfield town	773
Woodland town	1,368

SHAWANO

Almon town	303
Angelica town	335
Belle Plain town	735

SHAWANO (Continued)

Fairbanks town	191
Grant town	757
Green Valley town	392
Hartland town	1,196
Herman town	462
Hutchinson town	280
Lessor town	465
Maple Grove town	600
Milltown town	485
Navarino town	189
Pella town	585
Richmond town	706
Seneca town	346
Shawano city	890
Washington town	809
Waukechon town	645

SHEBOYGAN

Greenbush town, incl. Glenbeulah village	1,977
Glenbeulah village	375
Herman town	2,133
Holland town	3,012
Lima town	2,126
Lyndon town	1,704
Mitchell town	1,178
Mosel town	1,011
Plymouth city	1,052
Plymouth town	1,482
Rhine town	1,542
Russell town	557
Scott town	1,584
Sheboygan city	7,314
Ward 1	1,278
2	2,310
3	769
4	2,125
5	832
Sheboygan town	1,616
Sheboygan Falls town	1,810
Sheboygan Falls village	1,148
Sherman town	1,750
Wilson town	1,210

TAYLOR

Chelsea town	298
Little Black town	763
Medford town	1,020
Westboro town	230

TREMPEALEAU

Albion town	660
Arcadia town, including Arcadia village	3,167
Arcadia village	665
Burnside town	1,591
Caledonia town	446
Dodge town	569
Ettrick town	1,656
Gale town	1,786

TREMPEALEAU (Continued)

Hale town	1,301
Lincoln town	863
Pigeon town	793
Preston town	1,530
Sumner town	693
Trempealeau town, incl. Trempealeau vill.	1,567
Trempealeau village	615
Unity town	561

VERNON

Bergen town	1,014
Christiana town	1,305
Clinton town	1,008
Coon town	983
Forest town	889
Franklin town	1,319
Genoa town	919
Greenwood town	1,050
Hamburg town	1,156
Harmony town	1,062
Hillsborough town	1,218
Jefferson town	1,284
Kickapoo town	1,233
Liberty town	543
Stark town	954
Sterling town	1,382
Union town	741
Viroqua town, including Viroqua village	2,368
Viroqua village	762
Webster town	1,060
Wheatland town	917
Whitestown town	830

WALWORTH

Bloomfield town	1,097
Darien town	1,394
Delavan town, including Delavan village	2,560
Delavan village	1,798
East Troy town, including East Troy village	1,407
East Troy village	368
Elkhorn village	1,122
Geneva town, including Geneva village	2,899
Geneva village	1,969
La Fayette town	1,028
La Grange town	921
Linn town	823
Lyons town	1,312
Richmond town	882
Sharon town	1,956
Spring Prairie town	1,107
Sugar Creek town	980
Troy town	964
Walworth town	1,278
Whitewater town, incl. Whitewater village	4,519
Whitewater village	3,617

WASHINGTON

Addison town	1,774

WASHINGTON (Continued)

Barton town	1,275
Erin town	1,273
Farmington town	1,770
Germanton town	1,979
Hartford town	2,739
Jackson town	1,844
Kewaskum town	1,436
Polk town, incl. Schleisingerville village	2,037
Schleisingerville village	358
Richfield town	1,708
Trenton town	1,890
Wayne town	1,594
West Bend town	850
West Bend village	1,273

WAUKESHA

Brookfield town	2,096
Delafield town	1,451
Eagle town	1,155
Genesee town	1,368
Lisbon town	1,437
Menomonee town	2,258
Merton town	1,577
Mukwonago town	1,084
Muskego town	1,422
New Berlin town	1,620
Oconomowoc city	2,174
Oconomowoc town	1,336
Ottawa town	841
Pewaukee town, incl. Pewaukee village	2,192
Pewaukee village	566
Summit town	1,138
Vernon town	1,195
Waukesha town	4,613

WAUPACA

Bear Creek town	984
Caledonia town	902
Dayton town	801
Dupont town	654
Farmington town	764
Fremont town	879
Helvetia town	243
Iola town	979
Larrabee town, incl. Clintonville village	1,385
Clintonville village	573
Lebanon town	843
Lind town	978
Little Wolf town	1,342
Matteson town	520
Mukwa town	1,022
New London city (part of)	1,552
Royalton town	1,086
Saint Lawrence town	874
Scandinavia town	987
Union town	684
Waupaca city	1,392
Waupaca town	841

WAUPACA (Continued)

Weyauwega town, incl. Weyauwega village	1,243
Weyauwega village	722

WAUSHARA

Aurora town	1,081
Bloomfield town	1,384
Coloma town	443
Dakota town	537
Deerfield town	307
Hancock town	575
Leon town	768
Marion town	582
Mount Morris town	665
Oasis town	628
Plainfield town	1,109
Poysippi town	1,031
Richford town	449
Rose town	464
Saxville town	719
Spring Water town	577
Warren town	660
Wautoma town	708

WINNEBAGO

Algoma town	791
Black Wolf town	888
Clayton town	1,270
Menasha city	3,144
Menasha town	631
Neenah city	4,202
Ward 1	1,305
2	1,343
3	1,141
4	413
Neenah town	588
Nekimi town	1,226
Nepeuskun town	1,050
Omro town, including Omro village	2,694
Omro village	1,476
Oshkosh city	15,748
Ward 1	2,965
2	2,518
3	2,679
4	3,696
5	1,702
6	2,188
Oshkosh town	1,384
Poygan town	925
Rushford town	2,059
Utica town	1,045
Vinland town	1,069
Winchester town	1,176
Winneconne town	1,910
Wolf River town	940

WOOD

Auburndale town	809
Centralia city	806

WOOD (Continued)

Dexter town	209
Grand Rapids city	1,350
Grand Rapids town	656
Lincoln town	532
Marshfield town	1,001
Port Edwards town	348
Remington town	196

WOOD (Continued)

Rock town	261
Rudolph town	908
Saratoga town	316
Seneca town	567
Sigel town	656
Wood town	366

APPENDIX C

For those interested in computer programming, a copy of the 1880 Census Program, written in Applesoft BASIC, is included below.

```
10  REM                    1880 CENSUS PROGRAM
20  REM
30  REM                          CREATED BY
40  REM                       CLIFFORD W. BASS
50  REM
60  REM                          FOR USE BY
70  REM              GREEN BAY CORRECTIONAL INSTITUTION
80  REM
90  REM    COPYRIGHT 1984 BY THE STATE HISTORICAL SOCIETY OF WISCONSIN
100 REM                      ALL RIGHTS RESERVED
110 DIM X(35),Y(35),L(35),I2$(31),I$(35)
120 FOR I = 0 TO 35: READ Y(I),X(I),L(I): NEXT I
130 DATA 6,17,30,5,14,14,5,38,1,5,64,3,5,76,2,7,7,4,7,20,3,7,39,14,7,65
140 DATA 5,8,13,4,8,30,4,8,48,20,10,16,20,10,45,1,10,54,1,10,63,3,11,15
150 DATA 3,11,37,1,11,62,1,12,13,15,12,50,2,13,10,20,13,40,1,13,55,1
160 DATA 13,68,1,14,9,1,14,23,1,14,44,1,14,61,1,14,79,1,15,13,3,15,40,3
170 DATA 15,67,3,16,12,1,23,22,5,10,20,4
180 REM CHANGE 'HP = 1' TO 'HP = -1' TO MAKE THE PROGRAM START OUT NOT
    DISPLAYING THE SPECIAL KEY HELP MENU
190 HP = 1
200 SP$ = "                          ": PRINT  CHR$ (4);"PR #3": PRINT  CHR$ (4);"MAXFILES
    1":E2 = 0
210 ONERR  GOTO 5910
220 HE = 0: HOME : PRINT  TAB( 31);"1880 CENSUS PROGRAM"
230 PRINT : PRINT  TAB( 11);"COPYRIGHT 1984 BY THE STATE HISTORICAL SOCIETY OF
    WISCONSIN"
240 PRINT  TAB( 31);"ALL RIGHTS RESERVED"
250 VTAB 6: HTAB 19: CALL  - 958
260 VTAB 5: PRINT : PRINT "ENTER FILENAME: ";
270 IE = 0: PRINT I$(0): GOTO 750
280 IF I$(0) = "" THEN 270
290 FOR I = 1 TO  LEN (I$(0)):F1$ =  MID$ (I$(0),I,1)
300 IF F1$ <  > "." AND F1$ <  > " " AND (F1$ < "A" OR F1$ > "Z") AND (F1$ < "0" OR
    F1$ > "9") THEN 330
310 NEXT I
320 GOTO 340
330 VTAB 6: HTAB 18: CALL  - 868:I$(0) = "": GOTO 270
340 PRINT
350 VTAB 6: CALL  - 868: HTAB 19: PRINT "PLEASE MAKE SURE THAT <CAPS LOCK> IS
    DOWN"
360 VTAB 8: HTAB  INT ((50 -  LEN (I$(0))) / 2): PRINT "PLEASE INSERT ";I$(0);" DISK IN
    DRIVE 2"
370 CALL  - 958
380 VTAB 23: HTAB 30: PRINT "OK TO CONTINUE (Y/N)? ";: GET A$
390 IF A$ <  > "Y" AND A$ <  > "y" THEN 250
400 TR = 0
410 PRINT : PRINT  CHR$ (4);"UNLOCK ";I$(0);", D2"
420 PRINT  CHR$ (4);"OPEN ";I$(0);", L61"
430 PRINT  CHR$ (4);"READ ";I$(0);", R0"
440 INPUT R$:TR =  VAL ( LEFT$ (R$,3))
450 IF TR > 0 THEN 540
460 VTAB 23: HTAB 30: CALL  - 868: VTAB 9: PRINT : PRINT "ENTER COUNTY CODE:
    ";I$(35);
470 PRINT  CHR$ (4):IE = 35: GOTO 750
480 IF  LEN (I$(35)) < 4 THEN 470
```

```
490 I$(35) = ""
500 FOR I = 0 TO 3:J =  ASC (I2$(I)): IF J > 96 AND J < 123 THEN J = J - 32
510 IF J < 65 OR J > 90 THEN 470
520 I$(35) = I$(35) +  CHR$ (J): NEXT I
530 GOTO 560
540 I$(35) =  MID$ (R$,4,4)
550 PRINT  CHR$ (4)
560 HOME : PRINT  TAB( 29);"Wisconsin 1880 Census": PRINT  TAB( 34);I$(35);" County"
570 PRINT "File ";I$(0); TAB( 64 -  LEN (I$(0)));"Record"
580 PRI[illegible]INT "Subdivision:"; TAB( 19);"Class:"; TAB( 6);"Enumeration District:"; TAB(
    8);"Page"
590 PRINT : PRINT "Page:"; TAB( 9);"Line:"; TAB( 8);"Street Name:"; TAB( 19);"House #:"
600 PRINT "Dwelling #:"; TAB( 9);"Family #:"; TAB( 9);"Last Name:"
610 PRINT : PRINT "First Name(s):"; TAB( 25);"Race:" TAB( 6);"Sex:"; TAB( 6);"Age:"
620 PRINT "Relationship:"; TAB( 8);"Marital Status:"; TAB( 6);"Married Within Year:"
630 PRINT "Occupation:"; TAB( 20);"Months Unemployed:"
640 PRINT "Illness:"; TAB( 25);"Blind:"; TAB( 6);"Deaf/Dumb:"; TAB( 6);"Idiotic:"
650 PRINT "Insane:"; TAB( 6);"Disabled:"; TAB( 6);"Attended School:"; TAB( 6);"Cannot Read:";
    TAB( 6);"Cannot Write:"
660 PRINT "Birthplace:"; TAB( 8);"Father's Birthplace:"; TAB( 8);"Mother's Birthplace:"
670 PRINT "Auxiliary:":HE = 1
680 IF TR > 0 THEN 720
690 VTAB 3: POKE 36,75: PRINT "1";
700 IE = 1:CR = 1: IF E2 = 0 THEN 750
710 E2 = 0: GOTO 740
720 CR = TR: GOSUB 4520:IE = 12
730 VTAB 23: HTAB 26: CALL  - 868
740 FOR I = 1 TO 33: VTAB Y(I): POKE 36,X(I) - 1: PRINT I$(I);: NEXT I
750 IF HE = 0 THEN 840: REM L > THIS LINE FOR E = 8
760 IF HE = 1 THEN 780
770 HE = 0: VTAB 17: PRINT : CALL  - 868: GOTO 840
780 GOSUB 5780:HE = 0: PRINT : PRINT : IF HP =  - 1 THEN 840
790 PRINT "Left arrow - Move left       RETURN - Next field       CONTROL-F - Next record"
800 PRINT "Right arrow - Move right     TAB - Prev. field         CONTROL-B - Prev. record"
810 PRINT "CONTROL-A - Insert space     Down arrow - Next sect.   CONTROL-G - Goto record x"
820 PRINT "DELETE - Del. character      Up arrow - Prev. sect.    ? - Help"
830 PRINT "CONTROL-D - Delete to end of field                     CONTROL-C - Quit";
840 VTAB Y(IE): POKE 36,X(IE) - 1
850 LI =  LEN (I$(IE)): IF LI = 0 THEN 890
860 FOR I = 1 TO LI:I2$(I - 1) =  MID$ (I$(IE),I,1): NEXT I
870 IF I2$(LI - 1) <  > " " THEN 890
880 LI = LI - 1: IF LI > 0 THEN 870
890 CP = 0
900 GET A$
910 K =  PEEK ( - 16384)
920 IF K = 63 THEN 1820
930 IF K > 31 AND K < 127 THEN 980
940 IF K = 127 THEN 1110
950 IF K = 21 THEN 1050
960 IF K > 13 THEN 900
970 ON K GOTO 1070,1170,1710,1150,900,1170,1170,1030,1170,1170,1170,1020,1170
980 IF CP = L(IE) THEN 900
990 I2$(CP) = A$: PRINT A$;: IF CP = LI THEN LI = LI + 1
1000 CP = CP + 1
1010 GOTO 900
1020 HP =  - HP:HE = 1: GOTO 750
1030 IF CP = 0 THEN 900
1040 PRINT  CHR$ (8);:CP = CP - 1: GOTO 900
1050 IF CP = LI THEN 900
1060 PRINT I2$(CP);:CP = CP + 1: GOTO 900
1070 IF LI = L(IE) OR CP = LI THEN 900
1080 FOR I = LI - 1 TO CP STEP  - 1:I2$(I + 1) = I2$(I): NEXT I
```

```
1090 LI = LI + 1:I2$(CP) = " ": FOR I = CP TO LI - 1: PRINT I2$(I);: NEXT I
1100 POKE 36,X(IE) + CP - 1: GOTO 900
1110 IF CP = LI THEN 900
1120 IF CP = LI - 1 THEN 1140
1130 FOR I = CP TO LI - 2:I2$(I) = I2$(I + 1): PRINT I2$(I);: NEXT I
1140 PRINT " ";: POKE 36,X(IE) + CP - 1:LI = LI - 1: GOTO 900
1150 IF CP = LI THEN 900
1160 PRINT  LEFT$ (SP$,LI - CP);:LI = CP: POKE 36,X(IE) + CP - 1: GOTO 900
1170 I$(IE) = "": IF LI = 0 THEN 1190
1180 FOR I = 0 TO LI - 1:I$(IE) = I$(IE) + I2$(I): NEXT I
1190 IF IE = 0 AND K = 13 THEN 280
1200 IF IE = 35 AND K = 13 THEN 480
1210 IF IE = 34 AND K = 13 THEN 1540
1220 IF IE = 0 OR IE > 33 THEN 900
1230 ON K GOTO 970,1270,970,970,970,1390,1460,970,1240,1580,1630,970,1680
1240 IF IE = 1 THEN 1260
1250 IE = IE - 1: GOTO 750
1260 IE = 33: GOTO 750
1270 IF CR > 1 THEN 1300
1280 GOSUB 5780
1290 VTAB 22: PRINT : PRINT "NO PREVIOUS RECORD": VTAB Y(IE): POKE 36,X(IE) + CP -
     1:HE = 1: GOTO 900
1300 IF CR <  = TR THEN 1350
1310 GOSUB 5780
1320 VTAB 22: PRINT : PRINT "OK TO SAVE CURRENT RECORD (Y/N)? ";: GET A$:HE = 1
1330 IF A$ = "Y" OR A$ = "y" THEN 1360
1340 GOTO 1370
1350 IF CR < TR THEN 4750
1360 GOSUB 3960
1370 CR = CR - 1: GOSUB 4520
1380 IE = 12: GOTO 750
1390 GOTO 4750
1400 GOSUB 3960:CR = CR + 1
1410 IF CR > TR THEN 1440
1420 GOSUB 4520
1430 GOTO 1450
1440 GOSUB 5790
1450 IE = 12: GOTO 750
1460 IF CR <  = TR THEN 1500
1470 GOSUB 5780
1480 VTAB 22: PRINT : PRINT "OK TO SAVE CURRENT RECORD (Y/N)? ";: GET A$: IF A$ =
     "Y" OR A$ = "y" THEN 1510
1490 GOTO 1530
1500 IF CR < TR THEN 4750
1510 GOSUB 3960
1520 GOSUB 5780
1530 VTAB 22: PRINT : PRINT "ENTER RECORD NUMBER:";: CALL  - 868:IE = 34:HE =
     1:I$(34) = "": GOTO 840
1540 IE = 12: IF I$(34) = "" THEN 750
1550 CR =  INT ( VAL (I$(34))): IF CR <  = 0 THEN CR = 1
1560 IF CR > TR THEN CR = TR
1570 GOSUB 4520:IE = 12: GOTO 750
1580 IF IE > 4 THEN 1600
1590 IE = 5: GOTO 750
1600 IF IE > 11 THEN 1620
1610 IE = 12: GOTO 750
1620 IE = 1: GOTO 750
1630 IF IE < 12 THEN 1650
1640 IE = 5: GOTO 750
1650 IF IE < 5 THEN 1670
1660 IE = 1: GOTO 750
1670 IE = 12: GOTO 750
```

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1680 IF IE = 33 THEN 1700
1690 IE = IE + 1: GOTO 750
1700 IE = 1: GOTO 750
1710 IF IE = 0 THEN 6340
1720 IF IE = 34 THEN 750
1730 PRINT : PRINT  CHR$ (4);"WRITE ";I$(0);", R0"
1740 R$ =  STR$ (TR): IF TR < 100 THEN R$ = "0" + R$
1750 IF TR < 10 THEN R$ = "0" + R$
1760 R$ = R$ + I$(35) + SP$ +  LEFT$ (SP$,22)
1770 PRINT R$
1780 PRINT  CHR$ (4);"CLOSE"
1790 IF IE = 35 THEN 250
1800 FOR I = 0 TO 35:I$(I) = "": NEXT I
1810 GOTO 220
1820 CH =  PEEK (36):CV =  PEEK (37): REM L < THIS LINE FOR I/O ERROR
1830 IF IE = 0 THEN 1880
1840 GOSUB 5780:HE = 1
1850 IF IE > 18 THEN 1870
1860 ON IE GOTO
     1900,1930,1960,1970,2010,2040,2050,2070,2080,2090,2100,2110,2120,2150,2170,
     2200,2490,2510
1870 ON IE - 18 GOTO
     2520,2540,2550,2560,2570,2580,2590,2600,2610,2620,2630,2640,2650,2660,
     3700,900,3720
1880 VTAB 7: PRINT : CALL  - 958: PRINT  CHR$ (4);"CATALOG, D2"
1890 I$(0) = "": FOR I = 0 TO LI - 1:I$(0) = I$(0) + I2$(I): NEXT I: GOTO 260: REM IF L <
     THIS LINE FOR I/O ERROR
1900 PRINT "Enter the name of the community only"
1910 PRINT "Do not include the TYPE of community:  City, Town/Township, or Village"
1920 GOTO 3950
1930 PRINT "Enter the TYPE of community": PRINT "C - City"
1940 PRINT "T - Town/Township": PRINT "V - Village"
1950 GOTO 3950
1960 PRINT "Enter the Enumeration Dist. No. at the top of the census page": GOTO 3950
1970 PRINT "Enter the name of the ward": PRINT "Usually only the larger cities are divided into
     wards"
1980 PRINT "This field will be blank when indexing rural areas"
1990 PRINT "Wards will usually be numbered, but sometimes words will be used": PRINT "Use a
     maximum of two characters to name a ward"
2000 PRINT "If it says 'East' enter 'E', if 'Southwest' enter 'SW'": GOTO 3950
2010 PRINT "Enter the page number": PRINT "Do NOT enter the manuscript 'Page No.'"
2020 PRINT "Enter the sheet number stamped in ink followed by the capital letter in the"
2030 PRINT "  corner of the page": GOTO 3950
2040 PRINT "Enter the line number": GOTO 3950
2050 PRINT "Enter the name of the street including the direction": PRINT "For example:  Enter
     'East Main St.' not just 'Main St.'"
2060 PRINT "The street name iswelling number from column 1": GOTO 3950
2090 PRINT "Enter the family number from column 2": GOTO 3950
2100 PRINT "Enter the surname from column 3": GOTO 3950
2110 PRINT "Enter the first name and middle initial or name from column 3": GOTO 3950
2120 PRINT "Enter color/race from column 4": PRINT "W - White","B - Black"
2130 PRINT "M - Mulatto","C - Chinese": PRINT "I - Indian/Native American"
2140 GOTO 3950
2150 PRINT "Enter sex of person from column 5": PRINT "M - Male"
2160 PRINT "F - Female": GOTO 3950
2170 PRINT "Enter age from column 6": PRINT "Enter ages less than a year as the letter 'M'
     followed by the number of months"
2180 PRINT "Ignore the months if over one year"
2190 PRINT "Examples:  If it says '7/12' you enter 'M7'": PRINT "          If it says '1 9/12' you
     enter '1'": GOTO 3950
2200 PRINT "Leave blank if column 8 says 'Head' or is blank, otherwise": PRINT "enter the
     relationship to the head from column 8"
```

```
2210 PRINT : PRINT : PRINT : PRINT : PRINT "TYPE 'R' TO SEE RELATIONSHIP CODES,
     ANY OTHER KEY TO RETURN ";: GET A$
2220 IF A$ < > "R" AND A$ < > "r" THEN 3950
2230 GOSUB 5780
2240 PRINT "ADA - Adopted Daughter   BRL - Brother-in-Law      FAL - Father-in-Law"
2250 PRINT "ASN - Adopted Son        COU - Cousin             GAT - Grand-Aunt"
2260 PRINT "ANT - Aunt               DAU - Daughter           GDA - Granddaughter"
2270 PRINT "BOA - Boarder            DAL - Daughter-in-Law    GFA - Grandfather"
2280 PRINT "BRO - Brother            FAT - Father             GMA - Grandmother"
2290 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANYTHING ELSE TO RETURN ";: GET
     A$
2300 IF A$ < > "N" AND A$ < > "n" THEN 3950
2310 GOSUB 5780
2320 PRINT "GNP - Grand-Nephew       GGF - Great-Grandfather  MOT - Mother"
2330 PRINT "GNI - Grand-Niece        GGM - Great-Grandmother  MOL - Mother-in-Law"
2340 PRINT "GSN - Grandson           GGS - Great-Grandson     NEP - Nephew"
2350 PRINT "GUC - Grand-Uncle        HUS - Husband            NIE - Niece"
2360 PRINT "GGD - Great-Granddaughter INM - Inmate            OTH - Other/Unknown"
2370 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER KEY TO RETURN ";: GET A$
2380 IF A$ = "P" OR A$ = "p" THEN 2230
2390 IF A$ < > "N" AND A$ < > "n" THEN 3950
2400 GOSUB 5780
2410 PRINT "ROO - Roomer             SOL - Son-in-Law         SSN - Stepson"
2420 PRINT "SER - Servant            SDA - Stepdaughter       UNC - Uncle"
2430 PRINT "SIS - Sister             SFA - Stepfather         WIF - Wife"
2440 PRINT "SIL - Sister-in-Law      SMA - Stepmother         WOR - Worker"
2450 PRINT "SON - Son"
2460 PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO RETURN ";:
     GET A$
2470 IF A$ = "P" OR A$ = "p" THEN 2310
2480 GOTO 3950
2490 PRINT "Enter the marital status from columns 9-11": PRINT "S - Single","M - Married"
2500 PRINT "W - Widowed","D - Divorced": PRINT "Blank - None given": GOTO 3950
2510 PRINT "Indicate if married within the census year from column 12": GOTO 3940
2520 PRINT "Enter occupation from column 13": PRINT "Omit these occupations:"
2530 PRINT "At school","At home": PRINT "Keeping house","Housekeeper (unless a paid servant)":
     GOTO 3950
2540 PRINT "Enter number of months unemployed from column 14": GOTO 3950
2550 PRINT "Enter illness from column 15": GOTO 3950
2560 PRINT "Indicate if blind from column 16": GOTO 3940
2570 PRINT "Indicate if deaf/dumb from column 17": GOTO 3940
2580 PRINT "Indicate if idiotic from column 18": GOTO 3940
2590 PRINT "Indicate if insane from column 19": GOTO 3940
2600 PRINT "Indicate if disabled from column 20": GOTO 3940
2610 PRINT "Indicate if attended school during census year from column 21": GOTO 3940
2620 PRINT "Indicate if unable to read from column 22": GOTO 3940
2630 PRINT "Indicate if unable to write from column 23": GOTO 3940
2640 PRINT "Enter the place of birth from column 24": GOTO 2670
2650 PRINT "Enter father's place of birth from column 25": GOTO 2670
2660 PRINT "Enter mother's place of birth from column 26"
2670 PRINT "If the place of birth is not in the following lists, or is unreadable,": PRINT "enter
     'XXX'"
2680 PRINT : PRINT "TYPE 'S' FOR STATE CODES, 'C' FOR COUNTRY CODES, 'G' FOR
     GERMAN STATE CODES": PRINT "ANY OTHER KEY TO RETURN ";: GET A$
2690 IF A$ = "S" OR A$ = "s" THEN 3470
2700 IF A$ = "G" OR A$ = "g" THEN 3060
2710 IF A$ < > "C" AND A$ < > "c" THEN 3950
2720 GOSUB 5780
2730 PRINT "AFR - Africa             AUS - Austria            BOH - Bohemia"
2740 PRINT "ANT - Antigua            AZO - Azores             BAM - British America"
2750 PRINT "ASI - Asia (unspecified) BAR - Barbados           CAN - Canada"
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2760 PRINT "ATL - Atlantic Islands     BEL - Belgium          CNR - Canary Islands"
2770 PRINT "AUT - Australia            BER - Bermuda          CEN - Central America"
2780 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";: GET
     A$: IF A$ < > "N" AND A$ < > "n" THEN 3950
2790 GOSUB 5780
2800 PRINT "CUB - Cuba                 FRA - France           GRN - Grenada"
2810 PRINT "DEN - Denmark              GER - Germany          HOL - Holland"
2820 PRINT "ENG - England              GIB - Gibraltar        HUN - Hungary"
2830 PRINT "EUR - Europe (unspecified) GBR - Great Britain    IND - India"
2840 PRINT "FIN - Finland              GRE - Greece           IRE - Ireland"
2850 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER KEY TO RETURN ";: GET A$
2860 IF A$ = "P" OR A$ = "p" THEN 2720
2870 IF A$ < > "N" AND A$ < > "n" THEN 3950
2880 GOSUB 5780
2890 PRINT "IOM - Isle of Man          MAL - Malta            NOR - Norway"
2900 PRINT "ITA - Italy                MEX - Mexico           NSC - Nova Scotia"
2910 PRINT "JAP - Japan                HOL - Netherlands      PAC - Pacific Islands"
2920 PRINT "LEB - Lebanon              NBR - New Brunswick    POL - Poland"
2930 PRINT "LUX - Luxembourg           NWF - Newfoundland     POR - Portugal"
2940 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER KEY TO RETURN ";: GET A$
2950 IF A$ = "P" OR A$ = "p" THEN 2790
2960 IF A$ < > "N" AND A$ < > "n" THEN 3950
2970 GOSUB 5780
2980 PRINT "PEI-Prince Edward Island   SAM - South America    TRI - Trinidad"
2990 PRINT "RUS - Russia               SPA - Spain            TUR - Turkey"
3000 PRINT "HI  - Sandwich Islands     SWE - Sweden           WAL - Wales"
3010 PRINT "SCO - Scotland             SWI - Switzerland      WIN - West Indies"
3020 PRINT "SAF - South Africa         SYR - Syria            SEA - At Sea"
3030 VTAB 23: PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO
     RETURN ";: GET A$
3040 IF A$ = "P" OR A$ = "p" THEN 2880
3050 GOTO 3950
3060 GOSUB 5780
3070 PRINT "ALS - Alsace                          BRA - Brandenburg"
3080 PRINT "ALL - Alsace-Lorraine                 BRU - Brunswick/Braunschweig"
3090 PRINT "ANH - Anhalt                          HAM - Hamburg"
3100 PRINT "BAD - Baden                           HAN - Hanover/Hannover"
3110 PRINT "BAV - Bavaria/Bayern/Biron            HES - Hesse/Hessen"
3120 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";: GET
     A$
3130 IF A$ < > "N" AND A$ < > "n" THEN 3950
3140 GOSUB 5780
3150 PRINT "HCA - Hesse-Cassel/Hesse-Kassel       HOH - Hohenzollern"
3160 PRINT "HDA - Hesse-Darmstadt                 HHE - Hohenzollern-Hechingen"
3170 PRINT "HHO - Hesse-Homburg                   HSI - Hohenzollern-Sigmaringen"
3180 PRINT "HPH - Hesse-Philippsthal              LIP - Lippe"
3190 PRINT "HPB - Hesse-Philippsthal-Barchfeld    LBI - Lippe-Biesterfeld"
3200 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER TO RETURN ";: GET A$
3210 IF A$ = "P" OR A$ = "p" THEN 3060
3220 IF A$ < > "N" AND A$ < > "n" THEN 3950
3230 GOSUB 5780
3240 PRINT "LWI - Lippe-Weissenfeld               MOR - Moravia"
3250 PRINT "LUE - Luebeck/Lubeck                  NAS - Nassau"
3260 PRINT "MEC - Mecklenburg                     OLD - Oldenburg"
3270 PRINT "MSC - Mecklenburg-Schwerin            POM - Pomerania/Pommern"
3280 PRINT "MST - Mecklenburg-Strelitz            PRU - Prussia/Preussen"
3290 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER TO RETURN ";: GET A$
3300 IF A$ = "P" OR A$ = "p" THEN 3140
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3310 IF A$ < > "N" AND A$ < > "n" THEN 3950
3320 GOSUB 5780
3330 PRINT "SXA - Saxe-Altenburg                    SLI - Schaumburg-Lippe"
3340 PRINT "SXC - Saxe-Coburg                       SHO - Schleswig-Holstein"
3350 PRINT "SXM - Saxe-Meiningen                    SCR - Schwarzburg-Rudolstadt"
3360 PRINT "SXW - Saxe-Weimar                       SCS - Schwarzburg-Sondershausen"
3370 PRINT "SAX - Saxony/Sachsen                    SIL - Silesia"
3380 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER KEY TO RETURN ";: GET A$
3390 IF A$ = "P" OR A$ = "p" THEN 3230
3400 IF A$ < > "N" AND A$ < > "n" THEN 3950
3410 GOSUB 5780
3420 PRINT "WLD - Waldeck                           WUR - Wurttemburg/Wuerttemburg"
3430 PRINT "WEI - Weimar": PRINT : PRINT : PRINT
3440 PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO RETURN ";:
     GET A$
3450 IF A$ = "P" OR A$ = "p" THEN 3320
3460 GOTO 3950
3470 GOSUB 5780
3480 PRINT "AL - Alabama      CT - Connecticut    GA - Georgia        KS - Kansas"
3490 PRINT "AZ - Arizona Terr. DK - Dakota Terr.  ID - Idaho Terr.    KY - Kentucky"
3500 PRINT "AR - Arkansas     DE - Delaware       IL - Illinois       LA - Louisiana"
3510 PRINT "CA - California   DC - Dist. Columbia IN - Indiana        ME - Maine"
3520 PRINT "CO - Colorado     FL - Florida        IA - Iowa           MD - Maryland"
3530 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";: GET
     A$
3540 IF A$ < > "N" AND A$ < > "n" THEN 3950
3550 GOSUB 5780
3560 PRINT "MA - MassachusettsMT - Montana Terr. NM - New Mexico TerPA - Pennsylvania"
3570 PRINT "MI - Michigan     NE - Nebraska       NY - New York       RI - Rhode Island"
3580 PRINT "MN - Minnesota    NV - Nevada         NC - North Carolina SC - South Carolina"
3590 PRINT "MS - Mississippi  NH - New HampshireOH - Ohio           TN - Tennessee"
3600 PRINT "MO - Missouri     NJ - New Jersey     OR - Oregon         TX - Texas"
3610 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
     OTHER KEY TO RETURN ";: GET A$
3620 IF A$ = "P" OR A$ = "p" THEN 3470
3630 IF A$ < > "N" AND A$ < > "n" THEN 3950
3640 GOSUB 5780
3650 PRINT "UT - Utah Territory    WA - Washington Territory  WY - Wyoming Territory"
3655 PRINT "VT - Vermont           WV - West Virginia         US - America & United"
3660 PRINT "VA - Virginia          WI - Wisconsin                States (unspecified)"
3670 PRINT : PRINT : PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY
     TO RETURN ";: GET A$
3680 IF A$ = "P" OR A$ = "p" THEN 3550
3690 GOTO 3950
3700 PRINT "Use this field to mark a record you're unsure about with an asterisk (*)"
3710 PRINT "These records will be specially reviewed later": GOTO 3950
3720 VTAB 11: PRINT : CALL - 958
3730 PRINT "ADAM - Adams      CRAW - Crawford     IOWA - Iowa         MARA - Marathon"
3740 PRINT "ASHL - Ashland    DANE - Dane         JACK - Jackson      MARI - Marinette"
3750 PRINT "BARR - Barron     DODG - Dodge        JEFF - Jefferson    MARQ - Marquette"
3760 PRINT "BAYF - Bayfield   DOOR - Door         JUNE - Juneau       MILW - Milwaukee"
3770 PRINT "BROW - Brown      DOUG - Douglas      KENO - Kenosha      MONR - Monroe"
3780 PRINT "BUFF - Buffalo    DUNN - Dunn         KEWA - Kewaunee     OCON - Oconto"
3790 PRINT "BURN - Burnett    EAUC - Eau Claire   LACR - La Crosse    OUTA - Outagamie"
3800 PRINT "CALU - Calumet    FOND - Fond du LadLAFA - Lafayette      OZAU - Ozaukee"
3810 PRINT "CHIP - Chippewa   GRAN - Grant        LANG - Langlade     PEPI - Pepin"
3820 PRINT "CLAR - Clark      GREE - Green        LINC - Lincoln      PIER - Pierce"
3830 PRINT "COLU - Columbia   GRLA - Green Lake   MANI - Manitowoc    POLK - Polk"
3840 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";: GET
     A$: IF A$ < > "N" AND A$ < > "n" THEN 3950
3850 VTAB 11: PRINT : CALL - 958
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3860 PRINT "PORT - Portage     STCR - Saint Croix TREM - TrempealeauWAUP - Waupaca"
3870 PRINT "PRIC - Price       SAUK - Sauk        VERN - Vernon      WAUS - Waushara"
3880 PRINT "RACI - Racine      SHAW - Shawano     WALW - Walworth    WINN - Winnebago"
3890 PRINT "RICH - Richland    SHEB - Sheboygan   WASH - Washington WOOD - Wood"
3900 PRINT "ROCK - Rock        TAYL - Taylor      WAUK - Waukesha"
3910 VTAB 23: PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO
     RETURN ";: GET A$
3920 IF A$ = "P" OR A$ = "p" THEN 3720
3930 GOTO 3950
3940 PRINT "Y - Yes": PRINT "N or blank - No"
3950 VTAB Y(IE): POKE 36,X(IE) + CP - 1: GOTO 900
3960 REM SAVE CURRENT RECORD AND UPDATE TR IF NECESSARY
3970 VTAB 17
3980 PRINT : PRINT  CHR$ (4);"OPEN ";I$(0);", L61"
3990 PRINT  CHR$ (4);"WRITE ";I$(0);", R";CR * 3 - 2
4000 PRINT "1880WI";I$(35);
4010 FOR I = 1 TO 33
4020 IF I <  > 10 THEN 4050
4030 PRINT : PRINT  CHR$ (4);"WRITE ";I$(0);", R";CR * 3 - 1
4040 GOTO 4070
4050 IF I <  > 19 THEN 4080
4060 PRINT "     ": PRINT  CHR$ (4);"WRITE ";I$(0);", R";CR * 3
4070 PRINT "_";
4080 IF I = 3 OR I = 5 OR I = 6 OR (I > 7 AND I < 11) OR I = 15 OR I = 20 THEN 4100
4090 GOTO 4120
4100 IF  LEN (I$(I)) = L(I) THEN 4120
4110 PRINT  LEFT$ (SP$,L(I) -  LEN (I$(I)));I$(I);: GOTO 4150
4120 PRINT I$(I);
4130 IF  LEN (I$(I)) = L(I) THEN 4150
4140 PRINT  LEFT$ (SP$,L(I) -  LEN (I$(I)));
4150 NEXT I
4480 PRINT "????"
4490 IF CR > TR THEN TR = TR + 1
4500 PRINT  CHR$ (4)
4510 RETURN
4520 REM RETRIEVE CURRENT RECORD INTO I$; L < THIS LINE FOR I/O ERROR
4530 VTAB 17
4540 PRINT : PRINT  CHR$ (4);"OPEN ";I$(0);", L61"
4550 PRINT  CHR$ (4);"READ ";I$(0);", R";CR * 3 - 2
4560 INPUT R$
4570 PRINT  CHR$ (4);"READ ";I$(0);", R";CR * 3 - 1
4580 INPUT R8$
4590 PRINT  CHR$ (4);"READ ";I$(0);", R";CR * 3
4600 INPUT R9$
4610 R$ = R$ +  MID$ (R8$,2,54) +  RIGHT$ (R9$,59)
4620 PRINT  CHR$ (4)
4630 I$(35) =  MID$ (R$,7,4)
4640 VTAB 3: POKE 36,75: PRINT CR;: IF CR > 99 THEN 4660
4650 PRINT " ";: IF CR < 10 THEN  PRINT " ";
4660 J = 11
4670 FOR I = 1 TO 33
4680 I$(I) =  MID$ (R$,J,L(I))
4690 J = J + L(I)
4700 VTAB Y(I): POKE 36,X(I) - 1: PRINT I$(I);
4710 IF  LEN (I$(I)) = L(I) THEN 4730
4720 PRINT  LEFT$ (SP$,L(I) -  LEN (I$(I)));
4730 NEXT I
4740 RETURN
4750 REM CHECK FOR VALID VALUES; L < THIS LINE FOR I/O ERROR
4760 VTAB 17: PRINT : CALL  - 868
4770 IF HE = 1 THEN  CALL  - 958
4780 I =  LEN (I$(1)): IF I = 0 THEN 4810
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4790 FOR J = 1 TO I: IF  MID$ (I$(1),J,1) <  > " " THEN 4820
4800 NEXT J
4810 PRINT "Subdivision must be filled in":IE = 1:HE = 2: GOTO 840
4820 IF I$(2) = "" THEN 4850
4830 I =  ASC (I$(2)): IF I > 96 AND I < 123 THEN I = I - 32
4840 IF I = 67 OR I = 84 OR I = 86 OR I = 88 THEN 4880
4850 PRINT "Enter classification of community"
4860 IE = 2:HE = 2: GOTO 840
4870 IE = 2:HE = 2: GOTO 840
4880 I$(2) =  CHR$ (I): IF  VAL (I$(3)) > 0 THEN 4900
4890 PRINT "Enumeration district must be filled in":IE = 3:HE = 2: GOTO 840
4900 I$(3) =  STR$ ( VAL (I$(3))): IF  LEN (I$(4)) = 0 THEN 4930
4910 T$ = "": FOR I = 1 TO  LEN (I$(4)):J =  ASC ( MID$ (I$(4),I,1)): IF J > 96 AND J < 123
     THEN J = J - 32
4920 T$ = T$ +  CHR$ (J): NEXT I:I$(4) = T$: IF  LEN (I$(4)) = 1 AND  VAL (I$(4)) > 0
     THEN I$(4) = " " + I$(4)
4930 IF  VAL (I$(5)) > 0 THEN 4950
4940 PRINT "Page number must be filled in":IE = 5:HE = 2: GOTO 840
4950 I =  ASC ( RIGHT$ (I$(5),1)): IF I > 96 AND I < 123 THEN I = I - 32
4960 IF I < 65 OR I > 90 THEN 4940
4970 I$(5) =  STR$ ( VAL (I$(5))) +  CHR$ (I): IF  VAL (I$(6)) > 0 THEN 4990
4980 PRINT "Line number must be filled in":IE = 6:HE = 2: GOTO 840
4990 IF  LEN (I$(8)) = 0 THEN 5020
5000 T$ = "": FOR I = 1 TO  LEN (I$(8)):J =  ASC ( MID$ (I$(8),I,1)): IF J > 96 AND J < 123
     THEN J = J - 32
5010 T$ = T$ +  CHR$ (J): NEXT I:I$(8) = T$
5020 IF  VAL (I$(9)) > 0 THEN 5040
5030 PRINT "Dwelling number must be filled in":IE = 9:HE = 2: GOTO 840
5040 I$(9) =  STR$ ( VAL (I$(9))): IF  VAL (I$(10)) > 0 THEN 5060
5050 PRINT "Family number must be filled in":IE = 10:HE = 2: GOTO 840
5060 I$(10) =  STR$ ( VAL (I$(10))):I =  LEN (I$(11)): IF I = 0 THEN 5090
5070 FOR J = 1 TO I: IF  MID$ (I$(11),J,1) <  > " " THEN 5130
5080 NEXT J
5090 PRINT "Last name of person not entered, is this what you want (Y/N)? ";: GET A$
5100 IF A$ = "Y" OR A$ = "y" THEN 5120
5110 IE = 11:HE = 2: GOTO 840
5120 VTAB 17: PRINT : CALL  - 868
5130 I =  LEN (I$(12)): IF I = 0 THEN 5160
5140 FOR J = 1 TO I: IF  MID$ (I$(12),J,1) <  > " " THEN 5200
5150 NEXT J
5160 PRINT "First name(s) of person not entered, is this what you want (Y/N)? ";: GET A$
5170 IF A$ = "Y" OR A$ = "y" THEN 5190
5180 IE = 12:HE = 2: GOTO 840
5190 VTAB 17: PRINT : CALL  - 868
5200 IF I$(13) = "" OR I$(13) = " " THEN I$(13) = "W"
5210 I =  ASC (I$(13)): IF I > 96 AND I < 123 THEN I = I - 32
5220 IF I < 91 AND I > 64 THEN 5250
5230 PRINT "Invalid race code, re-enter"
5240 IE = 13:HE = 2: GOTO 840
5250 I$(13) =  CHR$ (I): IF I$(14) = "" THEN 5280
5260 I =  ASC (I$(14)): IF I > 96 AND I < 123 THEN I = I - 32
5270 IF I = 70 OR I = 77 THEN 5290
5280 PRINT "Enter sex of person":IE = 14:HE = 2: GOTO 840
5290 I$(14) =  CHR$ (I): IF  LEN (I$(15)) = 0 THEN 5320
5300 IF  LEFT$ (I$(15),1) = "m" OR  LEFT$ (I$(15),1) = "M" THEN 5330
5310 IF  VAL (I$(15)) > 0 AND  VAL (I$(15)) < 111 THEN 5390
5320 PRINT "Enter a valid age":IE = 15:HE = 2: GOTO 840
5330 IF  LEN (I$(15)) = 1 THEN 5320
5340 I =  VAL ( RIGHT$ (I$(15), LEN (I$(15)) - 1))
5350 IF I > 11 OR I < 0 THEN 5320
5360 IF I < 10 THEN 5380
5370 I$(15) = "M" +  STR$ (I): GOTO 5400
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5380 I$(15) = "M0" +  STR$ (I): GOTO 5400
5390 I$(15) =  STR$ ( VAL (I$(15)))
5400 IF  LEN (I$(16)) = 0 THEN 5450
5410 T$ = "": FOR I = 1 TO  LEN (I$(16)):J =  ASC ( MID$ (I$(16),I,1))
5420 IF J > 96 AND J < 123 THEN J = J - 32
5430 T$ = T$ +  CHR$ (J): NEXT I
5440 I$(16) = T$
5450 IF I$(17) = "" THEN I$(17) = " "
5460 I =  ASC (I$(17)): IF I > 96 AND I < 123 THEN I = I - 32
5470 IF I = 68 OR I = 77 OR I = 83 OR I = 87 OR I = 32 THEN 5490
5480 PRINT "Invalid code for marital status, re-enter":IE = 17:HE = 2: GOTO 840
5490 I$(17) =  CHR$ (I): IF I$(18) = "" OR I$(18) = " " THEN I$(18) = "N"
5500 I =  ASC (I$(18)): IF I > 96 AND I < 123 THEN I = I - 32
5510 IF I = 78 OR I = 89 THEN 5530
5520 PRINT "Invalid value, re-enter":IE = 18:HE = 2: GOTO 840
5530 I$(18) =  CHR$ (I): IF  VAL (I$(20)) < 13 AND  VAL (I$(20)) >  = 0 THEN 5550
5540 PRINT "Months unemployed must be between 0 and 12 inclusive":IE = 20:HE = 2: GOTO
     840
5550 I$(20) =  STR$ ( VAL (I$(20)))
5560 FOR I = 22 TO 29: IF I$(I) = " " OR I$(I) = "" THEN I$(I) = "N"
5570 J =  ASC (I$(I)): IF J > 96 AND J < 123 THEN J = J - 32
5580 IF J = 78 OR J = 89 THEN 5600
5590 PRINT "Invalid value, re-enter":IE = I:HE = 2: GOTO 840
5600 I$(I) =  CHR$ (J): NEXT I
5610 I = 30
5620 IF  LEN (I$(I)) = 0 THEN 5700
5630 T$ = "": FOR J = 1 TO  LEN (I$(I))
5640 K1 =  ASC ( MID$ (I$(I),J,1)): IF K1 = 32 THEN 5670
5650 IF K1 > 96 AND K1 < 123 THEN K1 = K1 - 32
5660 T$ = T$ +  CHR$ (K1)
5670 NEXT J
5680 IF  LEN (T$) = 0 THEN 5700
5690 I$(I) = T$: GOTO 5710
5700 I$(I) = " WI"
5710 IF  LEN (I$(I)) > 1 THEN 5730
5720 PRINT "Invalid birthplace code, re-enter":IE = I:HE = 2: GOTO 840
5730 IF  LEN (I$(I)) = 2 THEN I$(I) = " " + I$(I)
5740 I = I + 1: IF I < 33 THEN 5620
5750 IF K = 2 THEN 1360
5760 IF K = 6 THEN 1400
5770 GOTO 1510
5780 VTAB 17: PRINT : CALL  - 958: RETURN
5790 REM SET UP VARIABLES FOR NEXT ENTRY, INCLUDING CR
5800 VTAB 3: POKE 36,75: PRINT CR;
5810 I =  VAL (I$(6)) + 1: IF I < 51 THEN 5860
5820 I = 1:J =  VAL (I$(5)):J1 =  ASC ( RIGHT$ (I$(5),1)): IF  INT (J1 / 2) * 2 = J1 THEN J =
     J + 1
5830 J1 = J1 + 1: IF J1 > 68 THEN J1 = 65
5840 I$(5) =  STR$ (J) +  CHR$ (J1): VTAB 7: HTAB 7: PRINT I$(5); LEFT$ (SP$,5 -  LEN
     (I$(5)));
5850 VTAB 3: POKE 36,75: PRINT CR;
5860 I$(6) =  STR$ (I)
5870 VTAB 7: HTAB 20: PRINT I$(6); LEFT$ (SP$,4 -  LEN (I$(6)));
5880 I$(12) = "": VTAB 10: HTAB 16: PRINT  LEFT$ (SP$,20);
5890 FOR I = 14 TO 33:I$(I) = "": VTAB Y(I): POKE 36,X(I) - 1: PRINT  LEFT$ (SP$,L(I));:
     NEXT I
5900 RETURN
5910 E1 = E:L1 = L
5920 E =  PEEK (222)
5930 L =  PEEK (218) +  PEEK (219) * 256
5940 VTAB 17: PRINT : PRINT  CHR$ (4): VTAB 17: PRINT
5950 IF E = 4 THEN 6040
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5960 IF E = 5 THEN 460
5970 IF E = 6 THEN 420
5980 IF E = 8 THEN 6070
5990 IF E = 9 THEN 6260
6000 IF E = 255 THEN  RESUME
6010 PRINT  CHR$ (4);"CLOSE"
6020 PRINT "ERROR #";E;" IN LINE ";L
6030 GOTO 6250
6040 PRINT "DISK WRITE PROTECTED": PRINT "PLEASE REMOVE WRITE PROTECT TAB"
6050 PRINT "TYPE ANY KEY WHEN READY ";: GET A$
6060 GOTO 220
6070 IF L > 750 THEN 6100
6080 VTAB 23: HTAB 30: PRINT "  INITIALIZING DISK  ";
6090 PRINT : PRINT  CHR$ (4);"INIT DUMMY, D2": PRINT  CHR$ (4);"DELETE DUMMY":
     GOTO 420: REM L = THIS LINE FOR I/O ERROR
6100 PRINT "I/O ERROR, PUT DISK IN DRIVE 2, AND CLOSE DOOR"
6110 PRINT "TYPE 'C' TO CANCEL FUNCTION, ANY OTHER KEY WHEN READY ";: GET A$
6120 IF A$ <  > "C" AND A$ <  > "c" THEN 6170
6130 IF L < 1890 THEN 250
6140 IF L < 4750 THEN 750
6150 IF L = 6090 THEN 250
6160 GOTO 6250
6170 VTAB 17: CALL  - 958
6180 IF L < 1820 THEN 420
6190 IF L < 1890 THEN 1880
6200 IF L < 4520 THEN 3980
6210 IF L < 4750 THEN 4540
6220 IF L <  > 6090 THEN 6250
6230 IF L1 = 6090 THEN 6080
6240 GOTO 250
6250 PRINT : PRINT "ERROR ";E;" IN LINE ";L
6255 PRINT "UNABLE TO CONTINUE, PROGRAM ABORTED": PRINT : GOTO 6350
6260 CALL  - 958: PRINT "DISK FULL": IF IE = 0 THEN 6320
6270 PRINT  CHR$ (4);"WRITE ";I$(0);", R0"
6280 R$ =  STR$ (TR): IF TR < 100 THEN R$ = "0" + R$
6290 IF TR < 10 THEN R$ = "0" + R$
6300 R$ = R$ + I$(35) + SP$ +  LEFT$ (SP$,22)
6310 PRINT R$: PRINT  CHR$ (4);"CLOSE"
6320 PRINT "PUT A NEW DISK IN DRIVE 2, TYPE ANY KEY WHEN READY ";: GET A$
6330 TR = 0:E2 = 1: GOTO 220
6340 HOME
6350 END
```